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MUSCULAR MOVEMENT WRITING MANUAL

C. C. LISTER

THE MACMILLAN COMPANY

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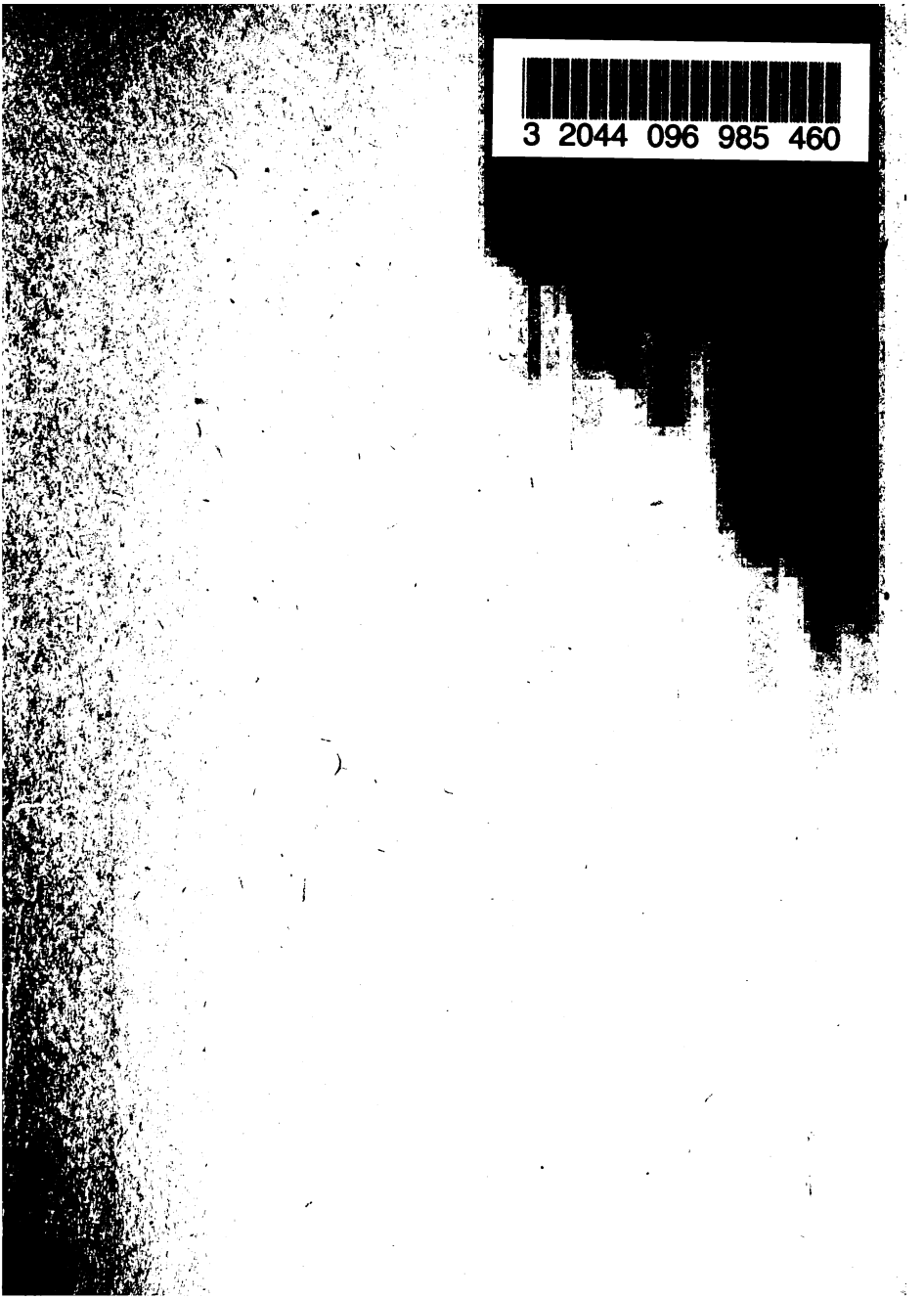
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MUSCULAR MOVEMENT WRITING

MANUAL

MUSCULAR MOVEMENT WRITING

ELEMENTARY BOOK ADVANCED BOOK

MANUAL

MUSCULAR MOVEMENT WRITING

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MANUAL

BY

C. C. LISTER

DIRECTOR OF PENMANSHIP, BROOKLYN TRAINING SCHOOL FOR TEACHERS

New York

THE MACMILLAN COMPANY

1921

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PREFACE

THE successful teaching of writing is based upon well-established principles. The purpose of this book is to tell in as simple and concise a manner as possible just what these principles are and to furnish teachers such definite information and directions as will enable them to teach practical writing in an interesting and successful manner.

The methods presented in this series of lessons have been carefully planned, and thoroughly tested in practice with a view to furnishing an orderly presentation of the subject of Muscular Movement Writing.

The chief features of this manual may be stated briefly as follows: —

1. The importance of pedagogical methods of teaching writing is emphasized.

2. Sufficient treatment of the theory of the teaching of writing is given to enable teachers to realize the very definite purpose of each step in these lessons.

3. A definite purposeful plan is suggested for the teaching of each letter and figure. Common difficulties are anticipated and their remedies supplied.

4. Photo-engravings of common faults peculiar to each letter are given to guide the teacher in the development of each lesson.

5. The letters, both capital and small, are classified according to their fundamental movements and are presented in their natural sequence.

Actuated by a desire to make the instruction in this useful subject interesting and effective, this manual has been written, and the author ventures to hope that it will commend itself to the favorable consideration of teachers of writing.

C. C. LISTER.

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MUSCULAR MOVEMENT WRITING

MANUAL

MANUAL

CHAPTER I

INTRODUCTION

SOCIAL and business standards in writing demand legibility, ease, and speed. In order to measure up to these requirements one should be able to write plainly and rapidly. All instruction and practice in writing should have these ends in view.

The style of writing has undergone many changes during the past half century. One style after another has been tried and dropped. The prevailing opinion seems to have been that the unsatisfactory results were due to the particular style of writing in use. Some styles of writing are better than others, it is true, but the poor penmanship has been due more to *inefficient methods of teaching* than to the style of writing taught.

The importance of method.

The demand for freedom and ease in writing, as well as for good form, has developed a principle that controls largely the training in the movements and the practice of the movements which produce good writing. This principle expresses the fundamental conditions of writing, which are the health

of the body and of the special organs that are immediately concerned in writing.

In teaching Muscular Movement Writing, the physical and mental training is of fundamental importance. Since writing is a means of expression, the movements required to write legibly and fluently should be made automatic. The nerve and muscular elements should be trained, co-ordinated, and fused into a definite habit of action in order that one may write freely yet legibly with the least amount of conscious effort.

When pupils have secured, by practice, a skill and fluency in writing, which moves rhythmically in accord with thoughts and emotions at a fair rate of speed controlled by these thoughts and emotions, there is little or no attention to special elements or even words. The whole process becomes a unit, a single complex movement, which evolves these elements, but merely as elements merged into the given whole.

The ideal standard letters.

The best style or type of writing to serve as a standard for study and imitation is one that is plain, devoid of needless lines; that is, lines that neither add to legibility nor aid in execution; a style in which there is a clear distinction between turns and angles, and clear spacing between letters. It is said that illegibility is due more to making such letters as *m*'s, *n*'s, *i*'s, and *u*'s alike and to the crowding of letters together than to anything else.

The best standard capitals are those that are plain and easy to make, and from which, with slight modifications, other pleasing types of capitals may be developed, with-

out bordering on freakish type forms. A type of capital which makes it convenient to join to the letter following is preferable to any type that makes it necessary to break the movement by lifting the pen. For convenience in teaching, the fewer variations in the type forms, the better. This meets the principle of individual differences by allowing variations in forms of letters after the standard letter forms have been learned.

For the purpose of illustration the standard letters that are generally approved are here inserted.

In teaching it is

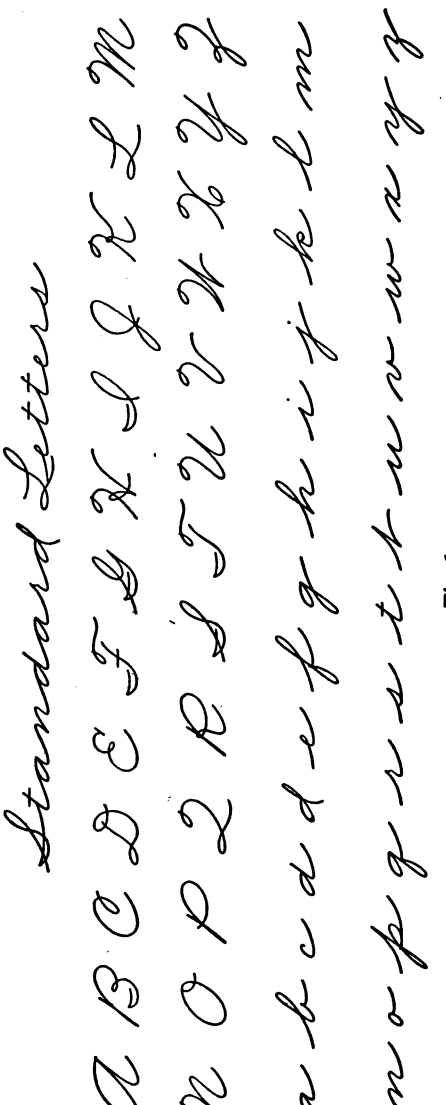

Fig. 1

important that the letters be classified according to their fundamental movements and their basic features. Capitals and small letters may be grouped as follows.

Capitals. Direct oval letters — *O, C, E, A;* reverse oval and straight line letters — *M, N, W, H, K, X, Z, Q;* reverse oval and under motion — *U, Y, V;* reverse oval — *J, I;* straight line letters *P, B, R;* compound curve letters — *G, S, L, T, F, D.*

Small letters. Oval letters — *o, a, c;* under motion — *i, u, w, e, s, r;* straight line — *t, d;* upper loop letters — *l, b, f, h, k, d;* lower loop letters — *j, g, y, z, p, q.*

A secondary grouping of small letters may be made as follows: pointed oval letters — *a, d, g, q, p; over-under* movement letters — *m, n, x, v, y, h;* letters ending with a horizontal curve — *o, w, v, r, b.*

The central thought. Writing habits. There are two very definite aims or purposes that should constantly be kept in mind by the teacher of Muscular Movement Writing. These aims or purposes are (1) to establish *writing habits* that are conducive to the physical welfare of the pupils, and (2) to teach pupils how to write legibly, easily, and rapidly.

It is said that in and above the third grade in school pupils sit eighty per cent of the school day. When we consider that a pupil spends the greater part of the five or more hours in every school day doing some form of desk work, the importance of zealously guarding correct habits of posture at the desk is self-evident. Under normal conditions work requiring this position is continued six years, the most plastic, habit-forming years of life.

CORRECT POSTURE

The pupil as a rule assumes a sitting posture in school for one of two purposes: to listen — then the body is relaxed and reclined against the back of the chair or seat; or to do some kind of work upon the desk — then the body is inclined forward. The latter position is the one with which the teacher of writing should be particularly concerned. When the pupil is writing or drawing, an act which requires a forward inclination of the body, there is the greatest tendency to let the head droop forward and downward and to bend backward the middle of the back.

CORRECT POSTURE

The first important problem to be considered then in learning to write is that of correct posture. This means more than the position of the fingers, the hands, and the arms; it means the position of the whole body. Correct posture should be maintained that writing may be done in a healthful and convenient manner.

Correct posture.

Children should be encouraged to follow directions for correct posture with enthusiasm. One of the best ways to create initiative on the part of the pupils is to explain to them very carefully and clearly the reason for doing the particular thing they are asked to do. It is a good plan to discuss the problem and each new step in the problem with the class. They should be told that sitting in a collapsed position with the body bent over the edge of the desk and with the chest curved in prevents natural breathing, interferes with digestion, circulation, and the natural functioning of the vital organs. When the chest curves inward the lungs do not have enough

How to teach correct posture.

room in which to expand fully, and if the pupil cannot breathe enough good, fresh air, the blood will not be pure. If the blood is not kept pure, the body cannot resist disease. Unless the body is held up in good position, other organs of the body, which digest the food, cannot do their work well.

Fig. 2
The correct writing posture

The pupils should also be shown by demonstrations that it is impossible to get the best results in writing unless correct posture is maintained. The best writing can be done when the pupil sits in an easy, well-balanced position. It is fortunate that the most healthful posture is also the most convenient for writing.

The teacher should realize that merely telling pupils how they should sit is not teaching correct posture. One has not taught posture until the pupils assume correct posture habitually and maintain it as a result of persistent training. In teaching posture the teacher of writing can cooperate with the director of physical training in guarding the physical welfare of children.

If pupils unconsciously assume incorrect posture, it is evident that the muscles which must hold the body in a correct posture are weak. These weakened muscles can be strengthened only through persistent exercise. This exercise necessitates coöperation on the part of the pupils and the teacher. The pupils must be taught the requirements of correct posture and the reasons for doing what they are required to do. This instruction will furnish a motive for the effort necessary on the part of the pupil if the desired result is to be achieved. Then there must be frequent reminders on the part of the teacher to prevent lapses. Bain says, on the subject of habit training:

"*First*, launch yourself into the habit you aspire to gain with as strong and decided an initiative as possible. *Second*, never suffer an exception until the new habit is securely rooted in your life. *Third*, seize the very first possible opportunity to act on every resolution you make, and on every emotional prompting you may experience, in the direction of the habits you aspire to gain. *Fourth*, keep the faculty of effort alive in you by a little gratuitous exercise every day."

At first the reminders on the part of the teacher should consist of definite directions. After the directions and the reasons for them are understood by the pupils the reminders

may be reduced to a word, or at most a phrase. To say, "Heads up," "Backs straight," "Feet in position," etc., may be made to mean as much to the class as a five-minute talk on any one of the foregoing points. But in the beginning the directions and the reasons for them must be given in such a way that these phrases will call back stimulating trains of thought.

A healthful writing position is frequently made impossible because of desks that are not suited to the size of the children. A desk that is too high forces a pupil to raise his elbows too high and to spread them too far apart to be comfortable. Or if he does not spread his elbows too far apart, he forces his shoulders upward into an unnatural position. On the other hand, if the desk is too low, the pupil is constrained to bend forward to write, a position which leads to a drooping of the shoulders and contracting of the chest. The near-edge top of the desk should be about three inches higher than the point of the bent elbow when the pupil sits erect and holds his elbow against his side. Many modern school desks are easily adjustable. Some unfortunately require a mechanic to make adjustments. Desk adjustments should be made, otherwise the pupils are obliged to adjust themselves to the desks.

The influence of desks on posture.

If the chair or seat is too high, the pupil finds it difficult to place his feet flat on the floor; and in the effort to do so the pupil slides forward so far as to cause excessive curvature of the lower part of his spine. If the chair is too low, his knees are forced upward, causing a strain on the muscles of the back and

The importance of the chair, or seat, in posture.

undue pressure on the organs of the body. The height of the chair or seat should be the length of the leg measured on the under side below the knee when it is bent, and when the feet rest flat on the floor as in a sitting posture.

If the seat is placed too far from the desk, the pupil is forced to lean forward so far that his body is thrown out of balance and his weight is placed on his arms: or he is obliged to move forward and sit on the front edge of the seat. Either of these conditions is detrimental to the best hygienic posture and convenience in writing. The seat should be so placed that its front edge will be directly under the edge of the desk.

The feet should be placed flat on the floor in front of the chair. In this position they serve to balance the body and relieve the weight that would otherwise be supported by the arms. It does not seem wise to insist upon any exact position of the feet, so long as they are kept flat on the floor in front of the chair. To insist that one foot should be just so far in front of the other would be to carry the matter to an extreme that would defeat the main purpose of making the pupil comfortable. There are two very common bad habits that should be avoided, however: (1) the placing of the feet back so that they rest upon the toes of the shoes, and (2) extending the legs forward so that the feet rest upon the heels of the shoes. When the feet rest upon the toes the weight of the body is thrown forward upon the arms; when the feet rest upon the heels there is a constant strain to prevent the body from leaning backward against the back of the chair.

The arms should rest on the desk with the elbows near

the edge of the desk. The point of the elbow of the right arm should be just a little off the desk to avoid bringing the elbow joint in contact with the top of the desk. See Fig. 3. The weight of the right arm should rest on the muscular cushion in front of the elbow. This flexible muscular support should be used as the pivotal point of movement. The elbow of the left arm should be on the edge of the desk. If it is permitted to hang off the desk, or if the

Fig. 3

The correct position of the arms on the desk.

left elbow is pushed too far forward from the edge of the desk, the left shoulder will drop lower than the right and curve the spine. The body should be steadied by the left arm. See Fig. 5.

If the desk is too small to allow the pupil to take a straight front position, it is necessary to turn to a half right side position and place the right arm farther on the desk. The desk is too small to take the straight front position when there is not room on the desk to rest the arm

and push the paper forward from time to time while the page is being filled. The chief objection, however, to taking the right side position is that the left elbow must be off the desk, thereby making it very difficult to keep the left shoulder on a level with the right. Although this might not produce any serious results for the adult, it should be avoided if possible for the growing pupil.

Fig. 4
The correct manner of holding the penholder.

The hand and the penholder.

The hand should glide on the nail of the little finger or on the nails of the little finger and the one next to it. The fingers should be turned back under the hand so that some part of the hard smooth nails will come in contact with the paper. Many of the best penmen glide the hand on the side of the nail and a part of the first joint of the little finger only. This is because the back of the hand and wrist turns slightly to the right when the muscles of the arm are relaxed. See Figs. 4 and 6.

The penholder should be held loosely between the first

and second fingers and the thumb. The first finger should rest on the top of the holder. It should be slightly curved upward and there should be at least one inch between the end of the first finger and the point of the pen. The second finger should slip down under the holder so that the holder will cross just over the top of the nail of the second finger. The end of the thumb should be bent slightly and touch the holder opposite the first joint of the first finger. The

Fig. 5

The direction in which the penholder should point.

holder should rest against the hand just back of the large knuckle joint of the first finger. The holder should point over the arm between the elbow and shoulder, — not over the shoulder. See Fig. 5.

The position of the wrist.

The wrist should be raised from the paper just a little so that it will not prevent the freedom of movement that must come from the muscles of the arm and shoulder. The top of the wrist should not be held flat, but be turned slightly to the right. This

is the natural, comfortable position of the wrist when the muscles are relaxed and when the arm is resting on a desk of the correct height for writing. See Fig. 6.

Many teachers of penmanship have aimed to keep the wrists flat; but this was probably done as an extreme measure intended to correct the opposite extreme of turning the hand so far to the right as to have the side of the hand rest on the paper. The right side of the hand should

Fig. 6
The correct position of hand and wrist.

never touch the paper, as it prevents the hand from gliding smoothly over the paper.

THE POSITION OF THE PAPER

Various rules for the position of the paper are suggested by teachers of writing; but if the *reason for turning the paper* on the desk is made clear to pupils little need be said about rules.

How to place the paper.

There are two principal lines of direction that must be observed in writing: first, the line of vision, indicated by

dotted line *AA* in Fig. 7; and second, the direction the pen must move across the page in writing.

The paper should be so placed that when resting the arm on the large muscular cushion (*B*), it will be easy to swing the pen to the right and to the left along the writing line. This position should be maintained. It permits the hand

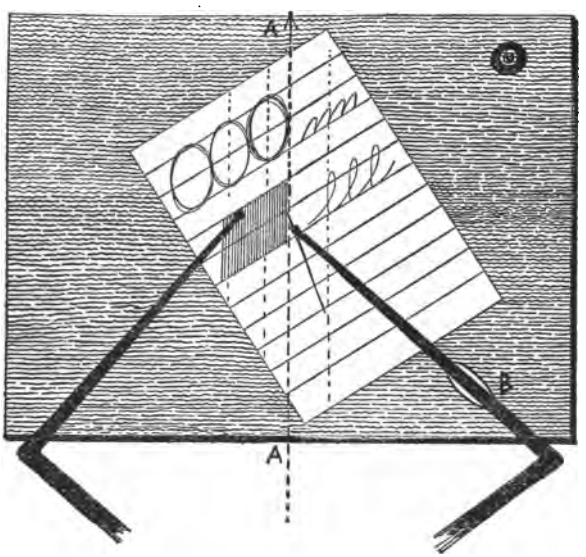

Fig. 7

Diagram showing the position of the paper.

to glide freely from the left to the right and makes possible the easy flowing movement desirable in rapid and legible writing.

It is a good plan to have pupils form the habit of testing the position of the paper before beginning to write by swinging the dry pen back and forth along the line. If the pen swings above or below the line in moving to the right,

the bottom of the paper should be shifted accordingly. It should be made clear that the only reason for turning the paper in writing is to enable the hand to move across the page along the writing line, using the muscular cushion in front of the elbow as a pivot and support of motion.

The direction of all downward strokes — the slant — should be toward the center of the body, along the line of vision as indicated by line *AA*, Fig. 7. If the downward lines lean too much toward the right, thereby producing too much forward slant (Fig. 8, *AA*) or if the downward lines are made in the direction of the elbow of the right arm, producing a backward slant (*BB*) the line of vision will cross the downward lines diagonally.

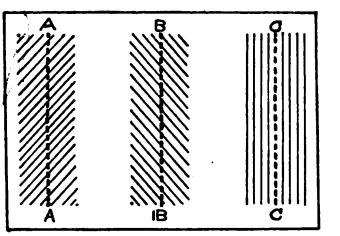

Fig. 8
Diagram showing the line of vision.

This constant diagonal view will cause eye strain. The line of vision (*CC*) — straight forward and backward, to and from the center of the body — indicates, therefore, the correct direction of all downward lines. Since the best writing can be done directly in front of the center of the body, it is necessary to stop writing and move the paper to the left two or three times in writing once across the page. In the lessons of the first part of this series, the exercises are so planned as to furnish quarter-line practice with a view to developing the habit of moving the paper. This is advisable in learning to write. If students will conform to this line of vision, or direction, a uniform and individual slant will be developed.

The paper should be held in position by the tips of the fingers of the left hand placed on the paper *above the writing line.* When the paper is held thus the left arm will be in a position to support the left shoulder properly, and prevent it from drooping forward and downward.

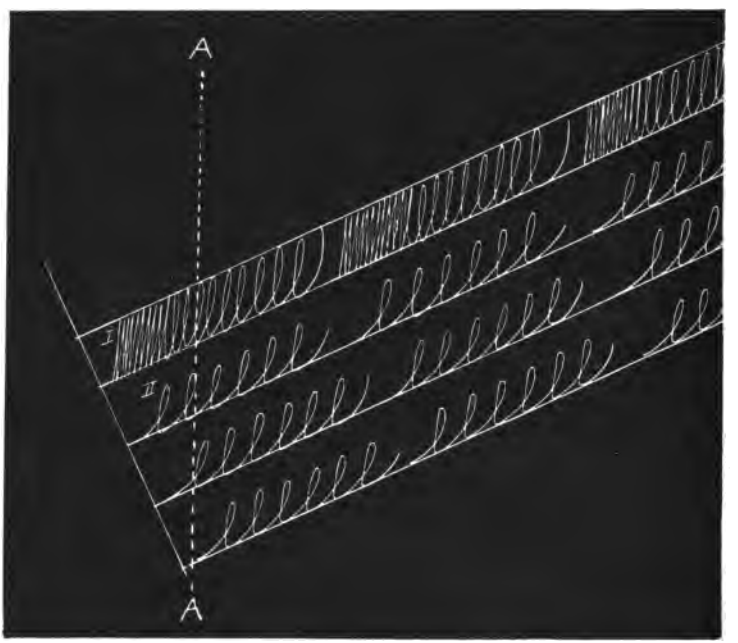

Fig. 9
Blackboard diagram for line of vision.

How to show the line of vision on the blackboard.

As has been explained, the line of vision for one writing on a desk is forward and backward — to and from the center of the body. See Fig. 7, line *AA.* This line of vision indicates the natural direction of all downward lines *when the paper is properly placed for writing.* When one lifts the paper

from the desk and holds it upright in front of the eyes, as he would in reading, the letters slant toward the right in conformity with the slant of the letters written in the usual way on a horizontal line on the blackboard. But when the paper is properly placed on the desk for writing, the direction of all downward strokes corresponds to a *perpendicular line* on the blackboard, as in Fig. 9.

Since they usually study their writing while the paper is placed in an oblique position on the desk, pupils will be enabled to get a clearer perception of the slant in writing and its visual advantages, if the teacher will sometimes illustrate by the use of oblique lines on the blackboard which correspond to the blue lines on the practice paper properly placed for writing. See Fig. 9.

CHAPTER II

MUSCULAR MOVEMENT WRITING

UNDER normal conditions in writing the weight of the arm rests on the desk or table. The power which moves and controls the pen in writing is either limited to the small and weaker muscles of the fingers, or comes from the larger, stronger, and more enduring muscles that are located in the arm and shoulder. When the power is limited to the muscles of the fingers it is called *finger movement. When the power is supplied by the muscles of the arm and shoulder, and the weight of the arm rests on the muscular cushion of the forearm, it is called muscular movement.* In finger movement writing the arm is inactive and the fingers alone are active. In muscular movement writing the fingers are inactive, or nearly so, and the arm is active. The untrained writer, as a rule, resorts to finger movement, largely for the same reason that a child creeps until he learns to walk and run — it is a means, however inadequate, of achieving a certain end immediately.

Muscular movement defined.

Muscular movement as a means of writing is not a new idea, though the name may be new. The use of the large muscles of the arm in writing has been a common practice

for a long period of time; indeed it has been known as muscular movement writing and taught in the leading business schools for half a century or more. Owing to the insistent demands for efficient writing and to the conviction of progressive school men that practical writing involving ease and rapidity and good form *can* be taught in the public schools, muscular movement writing is the preferred and adopted method in practically all schools in which the authorities are sufficiently interested to require writing embodying legibility, ease, and speed.

A movement drill in writing is the repetition of a single stroke or character with a view to making the process automatic. It may be the repetition of a straight line, an oval form, a letter, a combination of the straight line and oval, or the combination of the oval and a letter. The movement drills may be divided into two kinds: *general and specific.*

Movement drills.

General Movement Drills are the large exercises used to develop and train the muscles of the arm in writing, and to develop control and skill in movement which executes writing with confidence and with a light but firm touch. The straight line and the oval (direct and reverse) are used as General Movement Drills. See pp. 13, 14, and 15, *Advanced Book;* and pp. 12, 13, and 14, *Elementary Book.* They should be made two full spaces in height at first, and later reduced to one space in height as an approach to the size of usual writing.

General movement drills.

Because of the simplicity of these exercises the movement required to make them becomes automatic in a short time. The pupil's attention can then be directed to other

essentials in correct writing. These drills are not merely incidental exercises, to be practised occasionally, but basic and prerequisite exercises to all that follows. It is well to begin for a long time each writing lesson with some form of the general movement drills. Pupils fall in line quickly for the proposed work, and do it much more satisfactorily because of such preliminary exercise.

A *Specific Movement* drill is one in which a characteristic part of a letter to be taught is selected for practice. It is also a drill in which some form of a general movement drill and a letter form are combined. The purpose of a specific drill is to adapt the movement developed in the general movement drill to the production of letter forms: to help bridge a possible chasm between movement in general drill and movement in writing letters, words, and sentences. See pp. 19, 23, 34, 38, *Advanced Book.*

Specific movement drills.

When pupils have achieved a desirable skill in a series of movements and can make characters that are continuous, firm, clear, and graceful, the movements may be taken up severally and gradually utilized in forming letters and words. The movements may be analyzed and parts selected and combined with parts of other movements in making still different characters.

RHYTHMIC CONTROL

An essential feature of Muscular Movement writing is rhythmic movement and control of the fingers, hand, arm, and body in writing. Rhythmic time and speed must be maintained at all times. With the development of the control

will come the clear, firm, graceful lines which both children and adults admire.

The rhythm or time by which movement and speed are regulated during concert drills in writing practice may be indicated in various ways: by tapping a pencil lightly, by musical instruments, and in a limited way even by the use of the phonograph. But no other means serves the purpose so conveniently or so well as the human voice. The teacher who knows how to modulate the voice and count correctly, has little, if any, need of mechanical devices. The teacher who, without being noisy and fussy, can indicate an even continuous movement by a regular, evenly timed count; who can indicate slight interruptions in the movement by accenting certain counts; and who can encourage care in forming letters requiring slightly more time than others by prolonging the count where needed, is able to wield a far greater influence over a writing class than one who, through lack of this ability, is obliged to conduct the practice without rhythmic movement drill, or rely upon a mechanical device. One who does not know how to count correctly is not able to make good use of a device for marking the time.

Counting to regulate rhythmic movement and speed.

Counting should always be done in a low, quiet tone. One needs quiet nerves for writing. Noisy counting is never soothing to the nerves, and is always more or less distracting to pupils and especially to those of a nervous temperament.

The teacher should know that 1, 2, 3, may be counted in different ways. When three numbers are counted over

and over in succession as one counts in writing, it is very easy to accent one of the numbers and thus to give to it the *ictus*, or beat, that is common to rhythm. If the accent is placed on the 1 in each measure, the significance of the count is quite different from what it is when the accent is placed on the 2 or the 3. If the 1 and 2 are spoken quickly and the 3 is prolonged, the influence on the movement is entirely different from what it is when the 1 is prolonged and the 2 and 3 are spoken quickly. These variations in rhythmic counting can be accommodated to the writing movement and used to govern the muscular movements perfectly. It must, therefore, be obvious that counting must be done with intelligence and feeling.

The teacher will have little, if any, difficulty in discriminating between the correct and the incorrect count for a letter or drill. A few trials will enable one who can make the exercise with the correct movement to count for the movement in the correct time.

How to indicate the count.

It has always been difficult to indicate in a text the correct way to count for the different exercises owing to the accents and the little variations in time. The best way seems to be to indicate the correct time as clearly as possible by the punctuation. Where there is to be an even, running movement without any interruption, such as in the continuous oval drill, the count may be indicated as follows: *1–2–3–4–5–6–7–8–9–10 — 1–2–3–4–5–6–7–8–9–20*, etc. If an interruption is to be made on every second movement, it is indicated as follows: *1–2, 3–4, 5–6, 7–8, 9–10*, etc. If the lengthened time occurs on every third count it may be *1–2–3, 1–2–3, 1–2–3.*

A warning is probably necessary at this point. The teacher should never continue the rhythmic counting or voice guidance until it becomes necessary to children in writing. The vocal control should gradually be withdrawn and the rhythm allowed to become incarnate in the children's mental-physical mechanisms. Children must learn to depend upon their own rhythmic promptings in the last resort.

The element of time, or rhythm, constitutes a vital feature in the teaching of muscular movement writing. The intelligent adherence to correct time in conducting concert drills is one thing that is revolutionizing the teaching of writing. It is a well-known fact that rhythmic time is a necessary stimulus to all kinds of muscular training, especially where grace, ease, and continuity of motion are desired. Rhythm encourages and regulates movement. In class instruction nothing else serves so well to create and maintain interest and to unify the work of the class. Rhythmic practice plays an important rôle in diminishing the tensity and inducing the relaxed condition of the writing muscles — a condition always necessary to easy, rapid writing. Rhythm is the most important aid in all motor activity. When we walk, especially when we have a long distance before us, we acquire a rhythmic motion or swing that carries us along with ease and at a good rate of speed over the ground to our destination. Tapping with a stylus in certain experiments in the psychological laboratory is continued longer and more efficiently when done rhythmically.

The importance of rhythm.

CHAPTER III

HOW TO TEACH CAPITAL LETTERS

IT may be assumed that the pupils are able to make the continuous oval, as shown in the drill on page 14, *Advanced Book*, at the rate of two hundred per minute. The letter to be taught is the *capital O*. Have the pupils study carefully the copy on page 17, *Advanced Book*. Secure their attention to such features as size, shape, delicacy and firmness of lines, and the final stroke, before beginning to practise.

A lesson on capital letters.

Does the *O* occupy the full space between two blue lines? What is the shape of the *capital O*? Should the lines be light or heavy? What would heavy, tremulous lines indicate? In making this *capital* in what direction should the pen be moving when it touches the paper? In what direction should the pen be moving when it is lifted from the paper?

Suggestive questions on the lesson.

The failure to emphasize these features is almost certain to lead to aimless practice and to result in imperfect letters. If, for example, form only is made the important feature, pupils will probably think that when they can write *O*'s like

those of Fig. 10, line (1), they should be considered proficient enough to pass to another letter. Of course the letters thus formed are legible, but the tremulous line is evidence that the letters were made slowly, with the *finger movement.* The fact that letters are clear-cut, smooth, and firm is pretty good evidence that they have been made with the muscular movement and at a good rate of speed.

The rate of speed at which the capital *O* should be made is easily calculated. Allow two counts, as 1–2, which is correct, for each *O,* and one count, 3, for the transition, or swing to the point beginning the next letter. Divide 200, the number of ovals made per minute, by 3 and you will have the approximate number of *O*'s to be made in one minute. A less number of *O*'s should be required of pupils in the grades in which the *Elementary Books* are used.

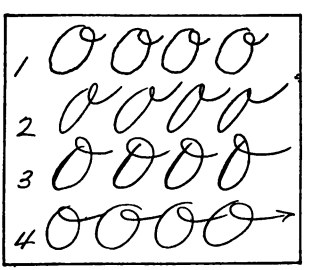

Fig. 10

Some benefit will be found in having the pupils swing the dry pen over the copy properly placed. This will insure them the correct sense of position and movement, which will serve as a guide in practice. The teacher should count *1–2* for each *O,* at the rate above suggested per minute for this dry-pen practice. With this preliminary drill to develop sense of position and movement, pupils are ready to write *O*'s at the same speed rate, and as well formed as possible.

Directions for practice.

A necessary preliminary is to determine approximately how many letters should be written on a single line. It is

well known that if letters are crowded the general appearance of the writing is bad. If they are unequally spaced or spread over too large a surface, the result is not satisfactory. A line eight inches long should be divided in four equal parts. One part, or space, will accommodate four capital *O*'s, and the entire line will thus allow for sixteen *O*'s. See page 17, *Advanced Book*. The appearance will be neat, and justify the attention given. This does not need to make the work mechanical, but it will tend to develop a sense of proportion which is indispensable in a well-written page.

Preliminary work.

If after a few moments' practice the teacher observes that the rate of speed is too great, she should experiment to find a better rate. She may sit at her desk and write with the class, counting for the class as she does so. This seldom fails to create initiative on the part of the pupils, and it guards against the common tendency to count too rapidly. After different rates have been tried, find out which has met with the greatest measure of success. Adopt this for a time, but if the rate be below 60 letters a minute, work gradually to bring the whole class to a rate of 64, the number given in the copy on page 17, *Advanced Book*. The teacher will need to inspect the work of each pupil quickly, of course, and note the measure of success in maintaining the rate of speed, the form of the letters, position and movement of arm and hand, penholding, and general posture. Correct quietly particular faults of position and movement and encourage all to achieve the speed desired.

How to grade the rate of speed.

In doing this the most common fault in the *O*'s will be

determined. This should usually be considered by the whole class. And in all criticism it is well to select for correction only one significant fault at a time. This may well be, for the first, the general form of the letter. The teacher of writing will find the most permanent benefit in having the class discover precisely what the defect may be and how to correct it.

How to correct errors.

Suppose that for this time the *O*'s are too narrow, like those shown in Fig. 10, line (2). The teacher may write four or more well-formed *O*'s on the blackboard, or if copies are at hand refer to the copy, and write in contrast with it a number of narrow *O*'s like those made by the pupils. Then have the class consider carefully the difference between the two kinds of *O*'s. Inquire as to their preference and so far as practicable their reasons for their choice. Have them try to explain how to correct the fault. With such discussion, practice may be resumed and attention directed to the making of an oval-formed *O*. Possibly some such phrase as the following, *Round O, Round O, Round O, Round O* for four *capital O*'s instead of the *1–2* count, will effectually direct the attention to the shape of the *O*. This should maintain the same time and rhythm as the regular count.

(1) *The form.*

A few minutes of practice will show the teacher what progress is being made. Ask the pupils to select three or four of their best *O*'s. Then practise again to secure skill in making similar or even better letters. Check up the best letters in each line, and compare with those selected as models to show improvement or acquired skill in making such letters continuously.

This exercise should have made quite certain the production of the proper form of the letter. Then the pupils may be led to find another significant fault in the letters they have made. We may suppose that the next general defect is in the quality of the line, which is heavy as in Fig. 10, line (3), and unlike the quality of line made in the general oval exercises. This defect should be studied and the correction made clear to all. As in the former exercise it was found that a change in the phrase used in indicating the time also emphasized the correction, so here a similar change will work advantageously. The phrase *Light line*, at the same rate of speed, will direct attention to the quality of the line.

(2) *The quality of line.*

As other faults are detected suggest corrections in like manner. If pupils tend to finish the *O* by swinging the pen toward the right, as in letters Fig. 10, line (4), instead of upward as in the copy, page 17, *Advanced Book*, direct them by the use of the phrase *Swing up, Swing up.* But take only one defect at a time and secure its correction before taking up another. Do not slacken the speed nor change the established rhythm. The results will justify the efforts made. The form, smoothness of line, grace and legibility of the letters will be more certainly secured if the same standard speed and free muscular movement are maintained throughout.

The benefit to be derived from this criticism.

It may be well to observe that pupils gain a twofold benefit from such a course of procedure as just outlined. They learn not only to practise and make good letters, but also to study intelligently any specimen of writing. They also form a fairly

dependable habit of looking systematically for faults and correcting them one by one. They recognize the marks of progress and are able to measure the improvement made from time to time. This gives them incentive and at the same time a reward that is more valuable than any "prize button" which the ambitious teacher may offer.

CHAPTER IV

HOW TO TEACH SMALL LETTERS

PRACTICE of the General Movement exercise gives skill in initiating and endurance in continuing regular movement of arms, hands, and pens. The real teaching of muscular movement writing comprises (1) the technical teaching of the twenty-six letters of the alphabet, and (2) the combining of these letters into words. These letters must be made not only quickly and easily, but in such a way that they are legible, simple, and pleasing in appearance. The movements in making these letters are complexes of the movements acquired in the preliminary exercises. By practice, especially when the letters are arranged in groups in accord with their elements and forms, the movement used in writing each letter is made automatic.

There should be a definite, purposeful plan in each lesson. Exercises given without plan or purpose soon become monotonous, and are seldom productive of satisfactory results. Pupils very quickly discover whether or not a definite plan is being followed. The following order for the development of a lesson is suggestive:

The lesson plan.

(1) Have the pupils study the copy to be practised.
(2) Have pupils become accustomed to the correct form and speed.

(3) Have the class discover chief fault and offer a way to overcome or correct it.
(4) Have special practice in correcting the fault.
(5) Have pupils select and mark the best letters, say three or four, and compare these with the copy.
(6) Have pupils continue practising with the aim of making their letters equal to their best, and of improving the best wherever possible.
(7) Correct faults one by one.

A lesson on the letter *h*

(1) *How to study the model.*

Pupils should select the important characteristics and describe the letter. These characteristics distinguish a letter from all other letters, and are, therefore, indispensable in making writing legible. They are also necessary in giving the letter a pleasing appearance. Pupils will not usually see these characteristics by merely looking at the copy. The teacher must direct the pupils to observe closely and correctly the characteristic features of the letter. A useful guide in questioning a class is the anticipation of the common faults in the letter under consideration. These faults are usually limited to two or three. For example, in teaching the small *letter h* the teacher knows that some pupils will make the loops too long, others will make them too narrow and pointed at the top, and some will make the final part of the *h*, which should be finished like the *small n*, sharply angular at the top.

The teacher may direct attention to these points by asking questions similar to the following: "Should the loops extend to the line above the one on which you are writing?" "Is the top of the loop in the *h* pointed or round?" "Is

the top of the last part of the *h* pointed or round?" It is helpful to call attention to the fact that the *letter h* is made up of parts of letters which the pupils have previously practised. The specific form of *h* is thus taught by comparison. Pupils are to study the *small l* and the *small n* to note the changes necessary in combining these letters into *h*. If there be time, pupils may review the *l* and *n* as a preparation for their combination into the *letter h*. It is better to avoid probable faults by emphasizing the *correct* features of letters instead of showing these probable faults. Let it be what *to do*, not what *not to do*.

One of the chief aims of the lesson is to have the class acquire the skill to make the *letter h* at the correct rate of speed. Unless this rate of speed is gained and maintained pupils will tend to center their attention upon form only and fail to learn to make the letter well at the rate they should make it in rapid writing.

(2) How to develop the standard rate of speed.

Letters that are made too slowly, or with the finger movement, will generally be tremulous or wavy lines like those in Fig. 11 (1). Pupils should quickly acquire a rate of movement insuring at least 60 "*h*'s" per minute. The count which the teacher will find useful is *1–2, 1–2, 1–2, 1–2* for each group of four letters. This rate is quite certain to produce smooth, clear-cut lines. Although pupils may later acquire a speed of 80 letters per minute, the rate of 60 will produce

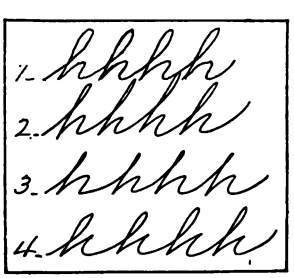

Fig. 11

the quality of line desired and is fast enough until uniformly well-formed letters can be made.

The third step is the criticism by teacher and pupils of the work already done, with corrections to be made where needed. Remember that only the important defects are first to be noted and that pupils should be led to discover them by their own efforts and consideration. Let us assume that much of the writing has the appearance of line (2), Fig. 11. In this specimen the loops are too long. Pupils are to recall what was emphasized at the beginning of this exercise, that the loops should not reach the line above that on which they were to write. The exercise is then proposed of making *h*'s at the usual rate of speed for one minute without allowing them to touch the upper line. Some will succeed, but others will require two or more trials before securing the proper movement-range for making loops of the right height.

(3) *How to correct defects.*

In similar manner the other chief faults should be passed in review, with exercises especially adapted to correct them. In line (3) the loops are too narrow; in (4) the final part of the *h* is angular. The discussion should always be directed to bring out clearly the fault and the manner of its correction. It lies, as one may readily perceive, in securing the proper movement of arm, forearm, and hand, and the right range of movement. When pupils are able to perform the movement correctly, securing the right range or reach in all necessary directions, then they will be found to be making letters that are well formed, rightly proportioned, and easily legible, at the normal sustained speed.

It frequently happens that the time for the writing lesson

is too short to cover all the points necessary in the development of a letter. It is hardly necessary to say that the study and practice of the letter should be continued at the succeeding lesson period. The purpose must be to secure the mastery of the muscular movements needed in making each letter in the best possible style, at the *optimum* speed, before taking up a new character for detailed study and practice.

The advantages of this procedure may be summarily stated as follows:

The results in writing to be attained by this procedure.

(1) Pupils study and practise intelligently, with definite purpose and increasingly clear idea of what is required.

(2) The purpose in all practice is specific and definite.

(3) Interest is awakened and maintained in the conscious recognition of progress in skill and results in writing.

(4) Pupils become closely observant, critical of their own products, and also self-reliant in working out corrections of faulty production.

(5) Although not to be taken in too literal a sense, pupils do form habits of concentration upon the project in hand, which may be made use of in certain allied kinds of activity and interest.

(6) The teacher's experience is turned to the pupils' profit in fullest measure.

CHAPTER V

HOW TO TEACH WORDS

In writing letters, either capital or small, it is generally recognized that the most effective practice for developing muscular control and skill consists in rapid rhythmic movement done in concert and under counting direction and guidance. This sort of practice is certain to produce the desired results. A clear and correct idea of the form or characteristics of letters associated with skillful muscular control in executing the movements of writing will produce letters that have all the essentials of good useful writing. But this is so far only a beginning of actual writing. Letters, however well formed and graceful in appearance, must be combined in varying ways with one another in words, and the words in sentences, before one can really be counted a good writer.

It should be kept in mind that almost all writing exercises presuppose a certain skill in letter combinations and word combinations upon which practice is based and which is to be improved. The exercises in individual letters have probably contributed something to the pupils' sense of balance, of proportion of letters to a line, of spacing between

letters, and the like. But it is not wise to depend upon these matters too implicitly. Teachers will have to remind pupils of what they are supposed to have acquired in former exercises, and apply their knowledge and skill to the new problems.

Writing words. (1) *The points to be considered.*

There are several points to which attention needs to be directed. *First,* one might imagine that pupils who can do excellently the letter drills, at *optimum* rate of speed and muscular control, and produce letters of grace, simplicity, ease, and unmistakable legibility, will naturally combine letters into meaningful words in the same manner and with like results. This is not always the case.

Before we can reasonably expect pupils to write spelling, compositions, and other general written work well with the muscular movement, we must teach them how to write words.

A valuable way of effecting skillful muscular control in word writing is at first to select certain words upon which practice and study may be concentrated. These selected words pupils should become able to write easily, quickly, with correct spacing between letters and with the most economical connections of letters.

Take the word *moon, Advanced Book,* p. 22. Practically the same plan of development that is followed in teaching a letter may be employed here. There should be a brief study of the word, its general appearance, and changes in beginnings and endings of letters to meet the new situation. The size of the letters and the spaces between the letters should be considered. The spaces between letters should

be compared with the width of the letters themselves, and the importance brought out clearly. The length and curvature of the initial and final strokes or lines should not be neglected in this preliminary study. Perhaps a rapid review drill on the individual letters may be judged necessary.

Second, the determining of the *optimum* rate of speed is indispensable. Of course this must agree with the rate already attained in making ovals and straight lines. A simple method of calculating this rate is to take as the approximate number of movements in making ovals 200 per minute. It is easy to discover that for the word *moon* the count would be *m–3*, *o–2*, *o–2*, *n–2*, or nine in total. If one count be allowed for the movement from one word to the next word, the total count will be 10 for each word. By dividing the standard rate of speed, 200, by 10, the number of counts to one word, one has as quotient 20, the approximate number of times the word *moon* may be written per minute. One should allow at the beginning for variation from this standard. Toward the close of the practice, when pupils are able to increase speed, raise the standard possibly to 22 or 25 words per minute.

(2) *Determining the rate of speed.*

There is some difficulty usually experienced in counting helpfully for words. The counting for letters is comparatively simple because of the repetition, which is decidedly rhythmic. Instead of counting for the words, as we do for individual letter drills, name, with due recognition of time required for each letter, the letters of the word to be written. The movement required in writing *moon* may be controlled by *naming the letters*, *m-o-o-n*, prolonging the sound of *m*

just enough to allow time to make the three *over* motions, and prolonging the sounds of the *o*'s and the *n* slightly less. Dashes of different lengths would show it about like this: m̄ ō ō n̄.

In naming the letters of a word, the teacher must allow for the slight interruption in the movements required in making and connecting certain letters. Some letters require a sudden and decided change in the direction of the movement. Such a change occurs at the top of the letter *o*. These interruptions in direction of movement are slight, probably unnoticed by the experienced writer, but they should be recognized by those just learning to write with the muscular movement. One who stops the movement momentarily on each *o* will have better control and consequently will be able to form the letters better than one who rushes through the word.

Another plan is to allow the pupils to swing along freely and easily for a minute without regulating the speed, to determine how much variation there is in the number of words written by the different pupils.

If the variation is marked, or if the general rate of speed is too slow, there should be sufficient practice to bring them all to the approximate standard determined for the age and grade of pupils.

There is also the way which has previously been stated in teaching letters. The teacher may write with the class for a few minutes, naming letters at proper rate and rhythm. It is best to spell a little slowly, rather than too rapidly, at first, and gradually increase the speed until a good movement is used. When the class as a whole has achieved the desired

speed rate in writing a given word, the counting or naming may be stopped and attention be directed to other features of the word.

The results of pupils' writing may at first show many defects. The more obvious will naturally be corrected by the pupils as they are brought to attentive consideration and repetition. But there may be more serious faults that need discussion and immediate correction. For example the writing may appear as that of line (1), Fig. 12. The lines are heavy, tremulous, or wavy, and show signs of having been done hesitantly and by wrong movement. In this, speed is the first thing that is to be secured. These words have been written slowly, with too much attention to the forms of the letters and not enough to the muscular movement involved. Demand increased speed and attention to muscular movement with only slight attention to the form of the letters at the start. Have pupils perform movements with dry pens, over copy if thought best, but secure their coöperation in right movements first of all.

How to correct errors.

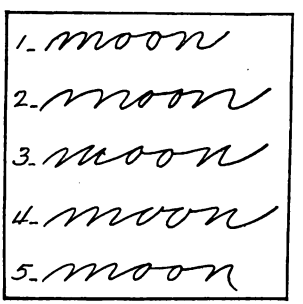

Fig. 12

The spacing between letters will probably require attention. The letters may be too broad and the spaces between them too narrow (Fig. 12, 2). An effective means of correcting this error is to have pupils draw lines down the first and last downward strokes of the *m*, a third line down the left side of the *o*, as shown in copy,

The spacing of letters.

Advanced Book, p. 22. The space between the last stroke of the *m* and the *o* should be as wide as that occupied by the *m* itself. If this is once corrected, the other defective spacings will be easily remedied by the pupils with perhaps no further instruction by the teacher. It is also well to designate the number of words to be written on each line, proper spacing between words, with right margin on each side of paper.

After spacing between letters, the characteristics of individual letters should be considered. The *m*'s and *n*'s may be sharply angular at the top, see line (3), Fig. 12; or the *o*'s may not be closed at top, as in line (4), or the final stroke may be made with a downward and not an upward movement, line (5). These errors need to be corrected one by one, thoroughly and once for all time. See that pupils understand the criticism. And wherever possible have them suggest the remedy.

The faults in letters.

At this point in the lesson the teacher should show the pupils individual faults which they should correct. A quiet word of criticism here, and a word of encouragement there, will bring the teacher into close touch with each pupil and afford an opportunity to discover the general faults. As soon as a general *fault* is discovered the teacher should stop all practice, and point out on the board the fault so clearly that no doubt will be left in the minds of the pupils as to the change that must be made. It is by such patient and helpful work in teaching pupils to achieve success in details that the whole result becomes possible and assured through the pupils' own ideals and energetic application.

The correction of general errors.

If pupils show signs of dropping behind the standard time, resume counting or naming of letters at once or have it done by one of the pupils. By so doing, pupils become more firmly established in rhythmic habits of action and achieve better results.

The failure to keep time.

All of these features to which attention has been directed are essential in good, legible, rapid writing. Writing is a means of ready record and of communication with those afar. It is made mechanically dependable to perform itself automatically. With such perfected mechanism for writing, one may be almost wholly occupied with one's ideas, only from time to time initiating the movements needed to execute the written words, sentences, or paragraphs that may convey our ideas to others. Others who may have to read our writing will be enabled to do so with least attention to the form of letters or words, and go straightway to the ideas conveyed. Writing that can be only with difficulty read makes an unnecessary task for the reader.

CHAPTER VI

HOW TO TEACH THE SENTENCE

PUPILS will have been writing sentences long before it is practicable to take up for special study and practice the technique of sentence writing. In connecting sentences, as in writing letters and words, the special purpose is to improve the ability to write continuous discourse so as to comply with all the essentials of good writing. Study and practice are at first analytic, emphasizing now this aspect and now that; then synthetic, incorporating the improved detail into the writing. In the study of the structure of the sentence, from the point of view of good writing, it is in the first place necessary to determine what are the characteristics of a well-written sentence, and then of a well-written group of sentences. With this step taken it is necessary then to improve by practice the already developed skill of writing sentences until it is possible to produce such an arrangement of words and sentences that meets all standard requirements of good writing. This implies the ability to produce an orderly, easily legible, and pleasing page of hand writing. Such a product is a work of art as well as of utility. And training in writing is assuredly incomplete unless it applies

the acquired skill of fashioning legible letters and words to the production of a page of sentences that exhibits the essential qualities of good penmanship.

It is common knowledge that although a well-written page of pleasing appearance is most desirable, it is conspicuously rare. The reasons for this are apparent. They may be ascribed for the most part to a neglect of the basal principles involved in a well-written page. These principles or conditions in their relation to the sentence we may consider very briefly.

The characteristics of a well written sentence.

First of all is regularity. This has been found to be fundamental in all previous study and practice, and it is equally important here. Not only must there be regularity in the form and size of letters, the spacing between letters in words, but there must be regularity in the spacing between words in sentences and between sentences as well. It is necessary to emphasize also regularity in the initial and final strokes of letters or words, since irregularity in these respects impairs sometimes seriously legibility and the general appearance of the page.

The second characteristic is that the lines of writing must be smooth, even, firm, and clear. If they are broken, wavy, or tremulous, now heavy and now light, or in general devoid of that smoothness and sharp yet pleasing effect that muscular technique gives, they cannot be considered satisfactory as regards either their utility or beauty. It seems necessary to repeat that the character of the lines reveals definitely the method of writing. The muscular movement produces fluent, continuous, clear, and graceful lines; but lines which

are labored, broken, and tremulous point almost certainly to a dominant finger movement in writing. This is most sharply presented in the written page, which depends in large measure for its excellence upon the character of the lines.

A third characteristic, closely correlated with the first and the second, and yet distinct enough to require special mention, is the idea of form. Form lies at the very root of successful handwriting. The writing mechanism may be trained to the highest degree of efficiency, but it must be guided at every stage by the idea of the form. The form of the letters, of their arrangement into words, of the arrangement of words in sentences, and of the sentences on the page is obviously indispensable. While a perfectly satisfactory form of the written page is only slowly developed, it may be accelerated by the study of good models and by progressive exercises that begin with the repetition of one sentence thoroughly mastered to the combination of several sentences that present somewhat more of the varieties of actual written composition.

How to master the sentence.

For the reasons we have above offered, it is recommended that pupils begin with the single sentence as given in the *Advanced Book*, p. 65. A rapid review of the principles brought out in the study and practice of writing words will be advantageous. They should be led to recognize the essentials that have been cited in the previous pages, especially in connection with the sentence.

In the practice work pupils will usually require more than one lesson to acquire the ability to write a sentence properly.

It is wise to make haste slowly, remembering that old habits may have to be reformed, a process that always proceeds more slowly than the formation of new habits. If the writing period were twenty minutes, two or three such periods would be necessary to develop the desired result. If it is only fifteen minutes, three or four such periods may well be given to the initial exercise.

If the class is to begin the practice of the sentence given in the *Advanced Book*, p. 65, "Combine legibility, ease, and speed," somewhat the following order might be observed. Have a brief practice of the capital *C*, then *m* and *n*, and if it seems needed, of *b*. Then have the class write the word *Combine*, which may indeed fill up the period. At the next writing period it may be well to review all the upper loop letters appearing in the sentence, and the lower loop letters, and then practise the word *legibility*. A third lesson may comprise exercises of similar character with the remaining words, *ease*, and *speed*. At the next period the complete sentence will provide ample material for practice. And as already suggested it may be necessary to devote more than one period to secure a satisfactory product.

The order of procedure. (1) *The sentence.*

A more advanced step is provided in the sentence exercises in *Advanced Book*, pp. 87 to 93. In these appear certain important features not possible in the mere repetition of a sentence regardless of the page appearance. Indentation of paragraphs, margin on right and left sides of page, together with the qualities already pointed out, require careful study and much practice to insure automatic and correct observance. After pupils have become

(2) *Sentence groups.*

sufficiently proficient in writing the copies given in the text, they may, under the direction of the teacher, apply what they have learned to longer compositions, personal letters, and to the simpler letters of business correspondence. The more usual business forms, as those in *Advanced Book*, pp. 92–93 or those found in the arithmetic textbooks, may be taken as copy.

CHAPTER VII

THE FIRST LESSON

WHEN the teacher meets the class for the first writing lesson she should begin with a short talk about the work to be done. No attempt should be made to discuss the subject exhaustively; many things will necessarily be taken up and explained from day to day; but the phases of the work with which the pupils must deal at once should be made very clear.

In this talk correct posture should be explained and the reason should be given. Muscular movement, as distinguished from finger movement, should be defined.

The class should then be taught the first easy steps in muscular movement. Have the pupils drop both arms on the desk with the points of the elbows at the edge of the desk, and the hands touching each other on the desk, directly in front of the center of the body. Then have them open the right hands and place the palms flat on the desks. The elbows of the right arms will then form square turns, or right angles, as they should when

The first easy steps in muscular movement writing. (1) *Exercise to secure flexibility.*

writing; and the thick muscular cushions will be on the under side of the arms. Then have the pupils raise their right hands just a little off the desks, keeping the fingers extended, and the hands will be as in Fig. 13. The advantage of practising with the fingers extended in this manner is that in this position the muscles are always relaxed. In the next step have the children move their hands forward and backward as far as the muscles will stretch, in the direction in which the fingers point.

(2) *Practice of direction.*

Fig. 13

In producing this exercise the pupils are to be guided in a study of the movement. Ask questions as follows: Where are the muscles that move the hands forward and backward located? They are, as you know, above the elbow and around the shoulder. Where is the muscle on which the arm moves? It is on the under side of the arm in front of the elbow. Should this muscle move backward and forward at the point on which it rests on the desk?

Of course it should not. Should the muscle *stretch* forward and backward when the hand moves as directed?

Pupils may readily be led to observe and to feel the stretching of this muscle as the hand moves forward and backward. Keep the pupils practising the movement constantly during the discussion just outlined.

Note, however, that the movements of the different pupils vary considerably, some rapid and some slow. These movements must be regulated by the teacher through rhythmic counting.

Fig. 14

As soon as this step is mastered the fingers may be turned under so that the nails of the third and fourth fingers will touch the paper as shown in Fig. 14. This and the other figures illustrating the position of the arm and hand show two points of contact — the large muscle which *stretches*, and the finger nails which *glide*. The wrist should not touch the paper at any time in writing.

(3) *Practice in gliding the finger nail on the paper.*

Fig. 15

(4) *Practice in movement with counting.*

Have pupils practise this movement in the position shown in Fig. 15 to a regular count until all can do it at the rate of about 200 a minute.

When the movement is understood, penholding as explained in Figs. 6 and 7, *Advanced Book* and *Elementary Book*, should be taken up. The pupils should practise (Fig. 16) holding the penholders correctly and run-

Fig. 16

ning them with dry pens, forward and backward in regular time controlled by counting.

The time required to teach the first easy steps will depend upon the ability of the class. It may be made perfectly clear in one writing period, or it may require two or more periods. It is a matter of judgment on the part of the teacher. In teaching writing, as in teaching any subject, one step must be taught before advancing to the next. And the teacher has not taught efficiently until the pupils have learned.

The proportionate amount of time to be given to the preliminary practice.

The Straight Line Movement Drill

Pupils are supposed to have mastered the following steps:

(1) The movement of the arm on the muscular cushion on the under side of the forearm.
(2) This movement to cover two full spaces on the practice paper.
(3) The ability to make the hand glide smoothly on the nails.
(4) The correct holding of the penholder.

The next step is the practice of the straight line exercise as shown, *Elementary Book*, p. 12, and *Advanced Book*, p. 13.

Some benefit will be derived if pupils run the dry pens up and down over the copy, properly placed. This will give them the correct muscular sense of the direction and movement before attempting the exercise.

General directions.

The paper is to be placed so that the pen will swing along the blue line from left to right. Then the first line should

be divided into quarters by making check (√) marks, as directed, *Elementary Book*, p. 12, *Advanced Book*, p. 13.

The pupils may then dip the pens into the ink, take position, and begin running the pens forward and backward *without touching the paper* until the teacher begins counting. Have the first count as the signal to touch the paper *while the pens are in motion.* The counting by the teacher should be as follows: *1–2–3–4–5–6–7–8–9–10—1–2–3–4–5–6–7–8–9–20*, etc. up to 100, in a half minute. The pen should run forward and backward on one count.

Specific directions. (1) *Counting.*

At first, the pupils will be unable to make 100 strokes within one quarter of the line. Instruct each pupil to follow the count until a check mark is reached, then to stop and record the number of strokes made. For instance, if the count were 65 just as the check mark was reached, the pupil should stop, write 65 at the point, then wait until the 100 count is finished.

(2) *The closeness of lines.*

Let the aim be to increase the number of strokes in each quarter-space by making the lines closer and closer, until 100 strokes are easily made. The lines must always run forward and backward along the line of vision, and to this the teacher must give careful attention. When pupils can make 100 strokes or lines on a quarter-space with the right movement and at the standard rate of speed, they will have the satisfaction of knowing that they are getting control of the pen, and can make it do something which was before not practicable.

Usually when pupils gain sufficient control to make very close lines, they may make the exercise too black. This is

usually due to too heavy pressure on the pen. They may cultivate lighter lines by making the pens run over the paper just as lightly and delicately as possible. This the pupils can attain by holding the penholders as loosely as possible. Gripping the penholders is a most common and harmful fault. When the penholders are gripped tightly, the result is that the muscles extending back through the wrist and arm are stretched tense and taut like the strings on a violin, which utterly prevents the freedom and fluent ease of movement indispensable to good writing. This movement is also most effective in correcting wrong habits of writing. The full, free swing which the hand and arm acquire by this exercise and which is gradually brought within the size desired develops control, skill, and the necessary confidence in ability to advance to more difficult tasks.

(3) *The lightness of line.*

The pupils should now be instructed to shift their papers to the left just about the same distance as that over which they have written. This should be done with the left hand, and should allow the right hand to retain the writing position without change. Have the pupils begin swinging their pens in the necessary way preparatory to the beginning of the count and the making of the lines in the next quarter-space.

(4) *Moving the paper.*

The two-space straight line should gradually be reduced until it conforms to the size of letters in which it is used.

The one-space exercise, see *Elementary Book*, p. 14, *Advanced Book*, p. 15, may be taken as a second step in the preliminary drills.

(5) *The change from the two-space movement.*

Practice of the straight line should be continued until the pupils are masters of these items:

(1) Holding correctly the penholder, without gripping or pressing too heavily upon it.
(2) Skill and standard speed in moving pen forward and backward in the right direction, and
(3) Making as nearly as possible just one hundred strokes in each quarter space.

This drill needs to be reviewed frequently after these things are mastered, and especially in preparatory exercises to letters of which the straight line is an essential part.

The Oval Movement Drill

No other exercise has served as well to develop power, freedom, control, quality of line, and confidence as the compact oval. See *Elementary Book*, p. 14, *Advanced Book*, p. 15. It is simple in execution, for it is merely the repetition of a single rotary motion. The movement required to produce it soon becomes automatic. As soon as the movement becomes automatic, or nearly so, the pupils' attention can be directed to details that are important in muscular movement writing. They may successively notice the form and slant of the ovals, observe the arm, and see that it moves freely on the muscular cushion. They may observe position of the third and fourth fingers, which should be turned under the hand and gliding smoothly and fluently on the paper. The wrist, they may notice, is raised just a little above the paper. The teacher may lead them to consider how they hold the

The compact oval drill.

penholder, whether pinching or holding it loosely, between the thumb and the first and second fingers. They may also observe the direction in which the penholder is pointing, and see that it points back over the arm, between the elbow and shoulder.

The drill to be practised in preparation for the compact oval drill is that presented in *Elementary Book*, p. 13, No. 1, and *Advanced Book*, p. 14, No. 1. In beginning this, the pupils place the copy of the book parallel with the blue lines on the practice paper, then with dry pens swing over the copy a few times to *see how it feels* to make the movements used in the ovals. Make the straight-line movements first, and then swing round and round the ends of the straight lines. After a few trials with the dry pen, they may, with ink, make on the practice paper the straight line and oval ten times on a line. The straight lines are first made to the count of *eight;* with pens raised the least bit from the paper, two ovals are swung around the straight lines to the count of *1–2* before touching the paper and making the eight ovals to the *3–4–5–6–7–8–9–10* count.

How to teach the compact oval drill. (1) *Preparatory work.*

The two oval swings taken before touching the paper give pupils a moment to think of the oval form before making it on the paper and to get the hand and the arm moving fluently in the necessary fashion. A very good way to regulate the time for a class is to say, "*Straight 1–2–3–4–5–6–7–8, Round 1–2–3–4–5–6–7–8–9–10*" for the retraced ovals. By saying *straight* before counting for the straight lines and *round* before counting for the ovals, the pupils are given a command of preparation for the required

movement and also time to change from one movement to the next. If these commands are given in the right tone and with the proper emphasis while counting, all the pupils will be kept together making the straight lines or the ovals in simultaneous movement.

If the results of this practice be too narrow, as are shown in Fig. 17, (1), then effort must be made to secure a more circular movement. It may be that the slant of the ovals (2) is not that of the straight lines. This is probably due to the neglect of pupils to swing around the *ends* of the straight lines. If the lines are too far apart (3), they show most plainly very poor control and the need of more practice in tracing with dry pens the copy of straight and oval lines. Strive always to have pupils make light, smooth, but firm lines, close together, and the oval lines just barely touching one another. (See copy, *Elementary Book*, p. 13, *Advanced Book*, p. 14.)

(2) *The correction of faults.*

Fig. 17

When the right slant of the ovals is secured by the straight-line-oval drill, the compact oval two spaces high (Drill 2, p. 14, *Advanced Book*) should be practised. The shape of an oval or ellipse should be clearly visualized as each circular movement is made. The lines are to be made close enough together to allow 400 ovals to a seven-inch line. After each 100 counts, the pupils should stop, and shift the paper about one and a half inches toward the left as previously suggested.

(3) *Practice the correct form.*

The quality of line developed by the straight-line and the oval exercises, and the optimum rate of speed which is gained in the practice, serve as the basis for all writing. *The standard rate of speed for straight-line and oval practice is approximately 200 in one minute — 100 to each quarter line, in one half minute.*

Pupils should become equally skillful in the direct and reverse oval drills one space high, as shown in Drill No. 2, p. 15, *Advanced Book*, and p. 14, *Elementary Book*.

Important points to emphasize during practice are (1) correct posture, (2) relaxed muscles, (3) correct slant, or direction, (4) roundness, or oval forms, (5) lightness of touch, and (6) compactness.

CHAPTER VIII

HOW TO TEACH LETTERS

IT is generally agreed among teachers of muscular movement writing that the capital *O*, which is closely related in form to the oval exercises, is the best letter to begin in the first specific application of movement to the making of letters. Questions such as the following suggest the chief characteristics of the capital: What general movement is used in making the *O*? How large is the *O*? Is it made with a heavy or a light line? In what direction should the pen be moving when it touches the paper? In what direction should the pen be moving when lifted from the paper?

How to teach the capital *O*. (1) *Study the letter.*

It has been proven by experiments that pupils who are skillful in the oval exercises will frequently revert to the finger movement in the attempt to make a letter. To prevent this tendency, associate by preparatory practice the retraced oval which embodies the movement required for making the *capital O* with the letter itself. *Advanced Book*, p. 16. The purpose of this is obviously to employ the same free swing used in the retraced oval in making the *capital O*.

(2) *Base the practice on general movement exercise.*

The pupils should be led to observe that the loop at the top of the retraced oval is like that of the *O*, and that the

final stroke is made with an upward motion. The size of the letter is a full space between two blue lines. Count six, rather quickly, for the retraced oval, and without hesitating say, "*swing 1, swing 2, swing 3.*" This encourages continuation of the movement of the retraced oval in writing the *capital O* at least *three times.*

(3) *Give careful attention to the details.*

Repeat the retraced oval and three *O*'s on each quarter line. The paper should be moved to the left as formerly. While the aim is to form the letters as nearly like those in the copy as possible, it is primarily to secure and establish as a habit a movement that is skilled or controlled, and also fluent and easy.

Further suggestions for teaching the capital *O* are given under *How to Teach Capital Letters*, p. 24.

The small *o* is a very much reduced form of the capital *O*. The final loop in the *capital O* becomes a dot, or point in the small *o*. It is necessary to stop at the top of each, in order to close it and swing toward the next letter properly.

How to teach the small *O* drill.

(1) *Preliminary practice.*

The special purpose in this practice is to develop confidence and control in moving the hand and pen across the page. See *Elementary Book*, p. 17, *Advanced Book*, p. 18. The letters in this exercise are separated a little more than they are in regular writing, for the purpose of giving practice in passing from one letter to another.

There are two movements in this drill, one in forming the small oval and one in swinging to the succeeding letter. The count is *1–2* for each *o*.

Faults may best be corrected by making the child *critical*

of his own work. Questions to draw the attention of children to the points of perfection in the model may be asked to encourage the child in intelligent self-direction of his work. Such questions as the following are suggested: What is the form of an *o*? Is the *o* open or closed at the top? What letter will the *o* resemble if the top is not closed? Is the line connecting one *o* with the following letter straight or curved? How many *o*'s are there in each group? How many groups on one line? Are the lines tremulous or smooth? What causes tremulous lines?

(2) *Practice in advanced classes.*

In advanced classes make four groups of five *o*'s each on a line. The speed at first should be four lines or 80 letters in one minute. This may be increased gradually until five lines a minute can be made, a rate which corresponds closely to the speed gained in practising the general movement exercises. The rate of speed may be calculated as follows. The count for one *o* is *1–2* and for a group of five *o*'s ten. Add to this two counts, or the time of one letter, to allow for passing from the final stroke of one group to the beginning of the next group, which gives 12. Two hundred, the standard rate of movement per minute, divided by 12, gives the approximate number of groups to be made in one minute. This rate of speed will insure smooth lines and correct the fault shown in Fig. 18 (1).

(3) *The correction of faults.*

If pupils do not allow wide enough space between letters to make the twenty letters extend across the page, Fig. 18 (2), they may be instructed to give a longer swing between them. Attention may be directed to this by counting thus: *1 swing, 2 swing, 3 swing, 4 swing, 5 swing.* If the *o*'s are too large, Fig. 18 (3), the

phrase *small o, small o, small o,* etc., will direct attention to the correction of this fault. If they are too narrow, Fig. 18 (4), as is frequently the case, use the phrase *round o, round o, round o.* The aim should be to make the *o*'s small, round, closed, and evenly spaced with a free, easy movement.

Questions like the following seldom fail to arouse interest in the work: How many are failing to close the *o*'s at the top? See (5), Fig. 18. By watching closely, can you make three lines of *o*'s and not leave one open at the top?

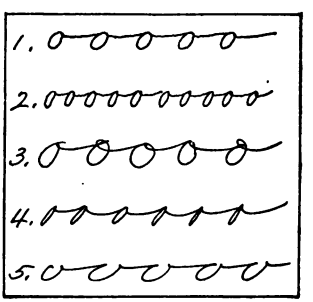

Fig. 18

Children are usually optimistic and feel certain they can do so. When the three lines are made at the standard rate of speed, ascertain whether they all succeeded in closing *every o.* Perhaps not more than three or four have succeeded. This will arouse a desire to try it again and again. It becomes a race—a contest, until many or all can close every *o.* There is scarcely a more interesting way than this to correct any fault; and the pupils are not likely soon to forget a lesson learned in this manner.

In the elementary grades four groups of 4 *o*'s each are suggested for one line. See p. 17, *Elementary Book.*

How to teach the capitals *M* and *N*. (1) *Preliminary work.*

The two fundamental movements used in all letter formations are the direct and reverse oval and the straight-line movements. Application of the direct oval movement was made in the *o*, both capital and small. We have now to apply the straight-line movement to *M* and *N*, capital and small.

As a preparation to make the *capitals M and N*, the straight-line and reverse oval drills (pp. 13 and 15, *Advanced Book*) and the *specific drills* (p. 19, *Advanced Book*) should be practised. The directions given on p. 19, *Advanced Book*, for the specific drills are to be followed. All downward strokes should be as light as the upward strokes. This will keep pupils from making the pens scrape or scratch the paper on the downward stroke. If any of the pupils make the down strokes in Drill No. 3, p. 19, *Advanced Book*, too short, as shown in Fig. 19, (1), a corrective exercise is to practise them a *full space high*, as shown in Fig. 19, (2).

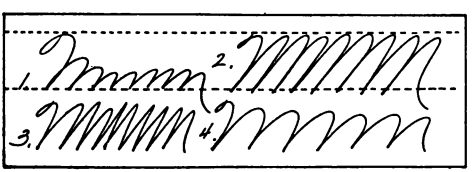

Fig. 19

(2) *Study of the model.*

Study the *capital M* on p. 20, *Advanced Book*, or p. 19, *Elementary Book*. Observe that the initial stroke comprises a small loop and a broad turn which becomes a straight line as it approaches the base line; that there are three *overturns* in the top of the letter; that the first overturn is broader than the other two; and that the three downward strokes have the same slant.

(3) *The correction of faults.*

A common fault in making these letters is to make angles at the top as in Fig. 19, (3). To correct this fault the *over* motion must be practised and round form securely established. Another fault may appear. The downward strokes may be too widely separated (4) which consequently makes the *M*'s and *N*'s too broad. A corrective exercise is to have pupils make the complete

exercise six times on a line, as in the copy. But, until pupils can make the specific drill *overturns* with regularity, it may be advisable to reduce the number to five or even four on a line.

This specific drill should have the same rate of speed as in the general movement drills; *i.e.* eighteen or twenty times in one minute. The rate of speed is estimated as in former exercises by dividing 200, the number of movements a minute in a general drill, by 10, the number of movements required for the specific drill. A small allowance is to be made for the time needed in passing from one group to another.

The small initial loop and the three overturns at the top of *capital M* should be studied carefully. Consider also the curvature of the final stroke, which is finished by a downward stroke until the letter is well and easily made with fluent muscular movement. See *Elementary Book*, p. 19, and *Advanced Book*, p. 20.

The first overturn should be broader than either of the others. The space between the straight lines of the *M* should be equal in width. The down strokes should be as light as the upward strokes. There are no angles at the tops of the *M* and *N*. Aim to make the last part of the *M* or *N* almost as high as the first part.

One may ask questions as follows: How tall is the capital *M*? How many overturns are made in the top of the letter? Have the turns all the same width? Are all the turns the same in height? In what direction should the pen be moving when it is lifted from the paper? Is the final stroke straight or curved?

It is advisable to allow a full stop at the base line on the first downward stroke, until the form of the *M* is practically perfect. Then the stop may be cut shorter until it is scarcely noticeable. The count is *1 stop, 3–4,* or *1–2, 3–4,* or *1–2, 3 swing.*

(4) *Illustration of faults.*

In Fig. 20, (1), the first turn at the top is too narrow and the letter as a whole is too broad; in (2) the initial stroke is too high and the remainder of the letter is too low; in (3) there are angles at the top and the last stroke is too high.

The number of *M*'s to be made in a minute is determined as already explained. The 200 basis is to be divided by 5 (4 counts for *M* and 1 for swing to next letter) which gives as quotient 40, or the number of *M*'s to be made in a minute. Of *N*'s 5 to 10 more can be made as the simple computation will show. More detailed treatment of the *capitals M and N* is given pp. 67 and 68, *Advanced Book.*

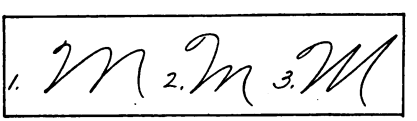

Fig. 20

How to teach the small *m* and *n*.

(1) *Preliminary exercises.*

The *small m* and *n* should be studied, practised, and reviewed frequently until they can be made skillfully. Perhaps no other letters serve to develop the highly specialized movement so well as do these letters. The straight-line or push-and-pull movement predominates in the small *m* and *n*, as it does in the corresponding capitals. Therefore the straight-line drill one space high should be practised as a preliminary. See **Drill No. 1**, p. 15, *Advanced Book.* The reverse oval drill *may also refresh the* muscular memory of the over motion.

Frequently pupils who can apply the muscular movement to the larger drills will unintentionally resort to finger movement in reducing the length of the *push-and-pull* movement to the size of the *small m*. This tendency may be avoided by first practising the over motion as in a rather large *m*, — about half the height between two ruled lines. See **Drill No. 1**, p. 21, *Advanced Book*. When pupils can make the form of this intermediate size with free muscular movement, they may assume the practice of the smaller form.

When the form is being reduced in height it should also be made more compact. The width of an *m* should be approximately twice the height. For spacing between letters see *Advanced Book*, p. 21, **Drill 3**. The downward lines should be close enough together to allow five groups of ten downward strokes each on a line.

As in former exercises on *capitals M* and *N*, care should be exercised to avoid angular tops, and to make the final stroke just as it is in the copy. The over-under motion at the end of the letters or forms is the difficult part to perfect. This exercise, comprising in all ten movements, should be executed twenty times a minute.

Analysis shows that small *m* is made by three over-motions. The count for an *m* is therefore *1–2–3;* and for a group of four *m's* the count is *1–2–3, 1–2–3, 1–2–3, 1–2–3*. In the early attempts to write *m*'s at full standard speed (52 or more per minute), pupils may make such mistakes as the following: The *m*'s may, Fig. 21, (1), be too broad, with the space between the letters too narrow. The space is shown in copy to be

(2) *The correction of errors.*

exactly as wide as is an *m*. Instead of counting *1–2–3*, say "*glide 2–3, glide 2–3, glide 2–3, glide 2–3*" for a group of four *m*'s. This method of counting may often be used to advantage.

In seeking to space better between the letters, the tendency may be encouraged to form sharply angular tops in the latter part of each group as Fig. 21, (2). And one needs constantly to recognize that in correcting one fault, others may be multiplied or at least made possible. So in this case, the corrective measure is largely responsible for a new fault, Fig. 21, (3). The final stroke of each letter is made with the wrong movement. It should be executed with the *under* movement, which gives a curving, not a straight line connecting with the next letter.

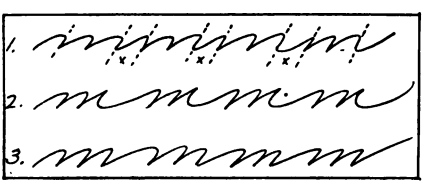

Fig. 21

In the course of all corrective and developmental exercises, keep the rate of speed as nearly to the standard as possible. If, in some difficulty, a slower speed is for a moment necessary, the standard should quickly be resumed. The necessity for this will be most obvious in the general character of the lines of the letters.

In the *elementary grades* it is better to make but three letters in a group and four groups on an eight-inch line. See *Elementary Book*, p. 20. Children of the ages and grades for which the *Elementary Book* is intended do not have, and can not reasonably be forced to acquire, the highly specialized control of the movements necessary to

the production of small, fine lines and characters. They should be encouraged to write in rather large and always fluent manner. The muscular movement should for them be first of all made habitual, reflex, automatic. All needed preventives and safeguards against wrong methods of writing will then be most effectually established. One right useful habit is an incomparably better preventive of wrong habits in the same domain than all the correctives that can be applied. For further discussion of this topic see *How to Teach Words*, p. 35.

A special application of the direct oval movement was made in the letter *o*, both capital and small. An application of the straight line was made in the capital and small *M* and *N*. The letter *A*, capital and small, combines both of these movements. This is a particularly interesting and profitable letter for practice. The oval motion, necessitating fluent movement, and the full stop at the angular joining, aid in acquiring control and confidence. For this reason the *A* exercise can be treated as a basic drill. The large oval exercise should frequently be practised in connection with it. Review **Drill No. 3**, p. 15, *Advanced Book*, as a preparation to the capital *A*.

How to teach the capital *A*. (1) *Correlation.*

A study of **Drills 1** and **2**, p. 23, *Advanced Book*, will give a correct idea of the form. Observe the slant and shape of the oval part of the letter as compared with the slant and shape of the oval in capital *O*.

By retracing the oval before swinging the oval part of the *A*, the hand is put into motion, which checks any possible tendency to a finger movement. By swinging the pen first to the top of the oval, then making the final stroke

down through its center, the pupil will quickly perceive that there is a definite aim in the practice. A full stop at the top of the oval will insure against making a loop.

The purpose of **Drill No. 3**, p. 23, *Advanced Book*, is to test and develop the pupil's ability to initiate the correct motion and to continue it until *A* is made three times. The pen is lifted from the retraced oval on the *downward* stroke and swung in continuous motion to the first *A*. The *A* must be closed at the top, at the point marked *x*.

(2) *Preliminary exercises.*

As soon as this drill can be executed with free swinging movement and a resulting form that is fairly good, drop it, and proceed at once to make four *A*'s on each quarter space, or 16 on a line. See *Advanced Book*, p. 24. The first line exercise shows the swing from one *A* to the next.

A good plan is to trace with the dry pen a few times over **Drill No. 1**, to *get the swing of it* and to feel the uninterrupted swing from below the line up and around to the next following *A*. Do not forget a momentary stop at the top, where the lines meet, which prevents making a loop. Make exercise **No. 2**, p. 24, by swinging as in the preceding exercise **No. 1**. Lift the pen in passing from one *A* to another as the dotted lines indicate. See directions for counting on p. 24, *Advanced Book*.

(3) *The correction of faults.*

If pupils loop the tops of the *A*'s as in Fig. 22, (1), it is probably due to their failure to stop at the top of the *A* before starting on the final stroke. If the *A*'s are open at the top, the defect may be remedied by urging pupils to push their pens forward far *enough to touch* the beginning point. See copy, p. 24,

Advanced Book. If such a fault as (3) of Fig. 22 appear it is evident that the pupils, in applying good movement, make the pens touch the paper in the upward swing. The pens must not touch the paper *until the downward* movement is begun. Pupils who make *A*'s too narrow, like (4) in Fig. 22, should apply more circular motion. For treatment of other features of capital *A* see *Advanced Book*, pp. 33 and 64, and *Elementary Book*, p. 23.

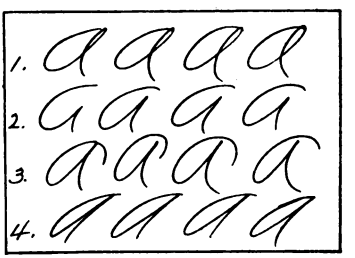

Fig. 22

In deciding what points to emphasize at the beginning of the study and practice of a new letter, it is well to ascertain what letter or letters the new letter may resemble. When this question is answered, one should also try to foresee what faults may appear and how most economically and certainly to block or correct them.

How to teach the small a.

The letter *a* obviously resembles in important parts both *u* and *o*. The second problem will plainly bring into view the facts, (1) that if *a* is left open at the top it will be confused with *u*, Fig. 23, (1), and if the final stroke is curved toward the next letter, instead of dropping to the base line before starting toward the next letter, it will necessarily resemble *o*, Fig. 23, (2). These points should be clearly foreseen before presenting the letter to the class. The pupils'

(1) *Correlated exercises.*

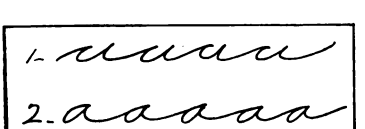

Fig. 23

attention should be led to observe that in all *a*'s in the copy, p. 25, *Advanced Book*, and *Elementary Book*, p. 24, the tops are closed, and that the final stroke invariably touches the line before the motion to the next letter is begun.

(2) *Study of the model.*

The *a* should be narrow and the connecting line between two *a*'s should be nearly straight. Pupils often need to be cautioned against exaggerating the curvature of the connecting line. Observe the regular spacing, which is about as wide as two *a*'s between the *a*'s.

(3) *Practice.*

For advanced grades the word *manna*, *Advanced Book*, p. 25, is an especially profitable word for practice, comprising as it does five letters, which correspond in number to the letter drill above, and furnishing a review of the *m* and *n*. The word can be written four times on a line with clear and regular spacing between letters and between words. The spacing between letters should be equal to the width of *m*. If necessary, have pupils employ dotted lines as illustrated in the first word.

The rate of speed that corresponds, approximately, to the rate of speed for oval exercises is 16 words in a minute. Note the supplementary words for practice. *In all word practice, at least one page of each word should be written.* For elementary classes shorter exercises and words are provided. The size of letters, and spacing between letters and words are adapted to the probable abilities of children of these grades. See *Elementary Book*, p. 24.

The small *i* and *u* are chosen here because they contribute to the development of ease and freedom in an *under motion* of accurate spacing, and a uniform slant. See

Advanced Book, p. 26, *Elementary Book*, pp. 22 and 27, for copies with full directions for practice. The downward stroke is short, but straight, and should slant toward the center of the body. The hand must move with the pen. Never allow any finger movement in making these letters, however strong the tendency. The under motion between the letters is distinct and must be so made invariably.

How to teach the small *i* and *u*. (1) *General direction.*

Counting for a group of *u's* is best done by *1–2, 1–2, 1–2, 1–2*, at first, instead of *1–2, 3–4, 5–6, 7–8*. Changing the figures seems to be distracting. When the rhythm is established the count given in *Advanced Book*, p. 26, may be used. Avoid too much rolling motion, which gives such a product as shown in Fig. 24.

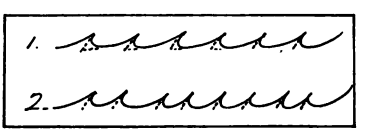

Fig. 24

Letters *n* and *u* are frequently confused with each other. The *n* requires a distinct *over* motion, and the *u* a distinct *under* motion. **Exercise No. 1**, page 27, *Advanced Book*, is invaluable for developing skill in making these letters clear and distinctive, free from any possible confusion with each other.

The time and rhythm to be observed in this practice may be suggested by saying *1–2, 3–4, 1–2, 3–4, 1–2* or *n–u–n–u–n*. The latter is probably the better.

In writing the word *minion*, pupils should let the pen run continuously to the top of the *o*, where a slight stop in the movement will insure control of the next stroke and also result in better letters. Remember that the *o* is closed and the tops of *m*'s and *n*'s are round.

The letter *e* is often made like, and mistaken for, the small *i*. The loop of *e* is often closed through carelessness. Give, therefore, attention to the loop and see that the correct movement is made to produce it. It may give a correct idea to the pupils to say "Make the *e* so you can see the white paper through its top."

How to teach the small *e*. (1) *General directions.*

The final stroke is made with a full *under* motion. Six *e*'s in a group with continuous movement and to an even, regular count of *1–2–3–4–5–6*, will meet the normal requirements. Regular spacing will allow five groups to a seven-inch line. The standard speed is 22 to 25 groups a minute. See *Advanced Book*, pp. 28 and 29, and *Elementary Book*, p. 22.

The word *mine* (*Advanced Book*, p. 29) involves especial emphasis of these points: good movement; *over* motion in *m* and *n*; a sharp point at the top of *i*; a loop in the upper part of *e*; the space between the letters equal to the width of an *m*; and the final stroke swung decidedly upward. The rhythm may be clearly indicated by naming the letters, as $\overline{m}$-$\bar{\imath}$-$\overline{n}$-$\bar{e}$.

The word *mine* is an excellent movement drill, and as such should be practised frequently until the pupils can write it from 20 to 25 times per minute easily and well with the muscular movement. See instructions, *Advanced Book*, p. 29.

The initial stroke of this letter is a short under motion which should begin on the line, never below it. Unless the initial stroke begins on the line, it will be straight, a condition which causes the letter to slant too much. The top of the *s* should be sharply pointed, and the bottom should be entirely closed. The space between the upward and downward strokes is narrow.

How to teach the small *s*. (1) *General directions.*

The attention of pupils may well be directed to specific points through questions. Say: "Is the *s* round or angular at the top? Is the *s* open or closed at the bottom? Is the *s* wide or narrow? Is the initial stroke straight or curved?" Pupils should answer these questions on the basis of their study of the copy, *Advanced Book*, p. 30, Drill 1. The count for the *s* is *1–2*, with a slight prolongation of the *2* to insure its being closed at the bottom.

If pupils are inclined to make the top of the *s* round, as Fig. 25, line (1), they should make a short stop at the top as well as at the bottom. If the letters are crowded together, as in line (2), a wider swing between letters will correct this. The closing of *s* at the bottom is important. It should not be as in line (3) nor as in line (4), where they are closed too near the top. If the downward stroke is heavy as in line (5), too heavy pressure on the pen is probably the cause. The downward strokes should be as light as the upward strokes. The correct speed for writing *s*'s is 16 groups per minute.

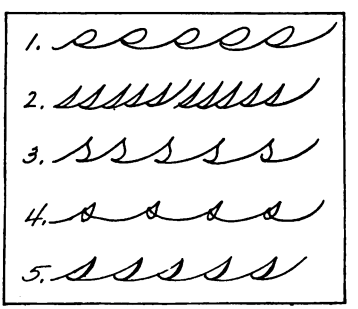

Fig. 25

The word *misses* is especially good as a practice Exercise (1) because the space between the letters may be measured exactly by the width of the *m*, and (2) because following the *m* in which the *over* motion is dominant, the remainder of the word is made with the *under* motion. In this the exercise, *Advanced Book*, p. 30, No. 2, has given preparation.

(2) *Directions for application.*

Common faults that may appear in pupils' work are illustrated in Fig. 26. In the first specimen the *m* is too wide and the spacing between the letters is too narrow. In the second line the *m* is angular at the top and the loop of the *e* is closed. In the third the *s*'s are round at the top; and in the last line they are open at the bottom.

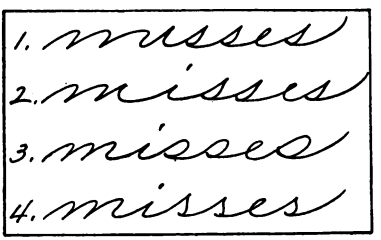

Fig. 26

Attention should be directed continually to the correct form of the letter so that these faults can be avoided through preparatory training. The teacher may make use of suggestive phrases in the count controls and at the same time maintain the necessary speed and rhythm. Such phrases have already been presented. New and appropriate forms may easily be devised for any letter or exercise, the principal requirement being that they must not distract attention from the real work in hand or retard and disturb the rate of speed and rhythm. It is quite too easy and cheap to employ phrases that seriously interfere with pupils' work, and provoke detrimental emotional reactions, a decidedly harmful attitude that cannot readily be converted into a better or be fully repressed later. As has been repeatedly stated, the emotional tone and the attitude of pupils must be favorable if the results are to be at all educative and productive of skill. Emotion dominates in much of our behavior and in most marked degree in this mode, which may of course ultimately be quite fully mechanized or automatized.

Attention to correct form.

If in the employment of such phrases there should for a brief moment be a slight retardation of the speed of movement, the aim should be definitely in mind to regain the desired speed very quickly. It is always possible to trace a rich crop of faults in movement and product to a rate of speed that is too far below the standard. And these errors are often refractory to the very end, as experience abundantly confirms. The standard rate of production, as may readily be verified by computation, will be about 16, possibly more, words in a minute.

When the pronunciation of the names of the letters of the word is used as speed and rhythm control, the quantity of the letters may be somewhat as follows. The *m* must be prolonged perhaps twice as long as the *s*. The *i* is shorter, perhaps about one-fourth the length of *m*. Dashes of different lengths may suggest their relative value, as *m i s s e s*.

How to teach the small *r*. (1) *General directions.*

Both styles of script *r* are given in this series. We consider first the *shoulder-form* of *r*, *Advanced Book*, p. 32. This form is more widely used than the form described in the *Advanced Book*, p. 42, and it is far less likely to be confused with other letters.

The practice of *s* in the preceding lesson is directly preparatory to the *r*. The initial stroke of *s* corresponds with the initial stroke of *r*. The turning point of the top of *r* is just a little higher than that of *i*. The chief characteristic of this style of *r* is the little angular shoulder in upper part. This shoulder depends for its value upon the full recognition of the two distinct angles required in its construction.

Pupils will quickly perceive the rhythm of the movement

in writing *r*, if the manner of counting suggestively controls their efforts. The count should suggest a momentary pause at the apex of the letter to insure the correct formation of the necessary angles. It must be admitted that *r* presents peculiar difficulties for counting or oral control of rhythm and speed. Experiments seem to show that the proper count is less than *1–2–3* and more than *1–2*. Probably the phrase *1 an' 2* that is sometimes used in musical tempo expresses the time most satisfactorily. It needs to be said in *singing* fashion, if one may so express it. When the *feeling* of the movement is rightly interpreted and expressed in the *1 an' 2, 1 an' 2*, there will be no obstacle to early success in the making of this letter.

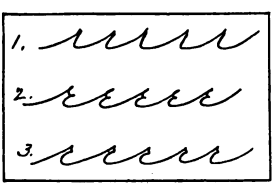

Fig. 27

(2) The establishment of correct form. The correction.

If *r* is made too narrow at the top it will resemble *i*, as in line (1), Fig. 27; if it is too broad, or the curve in the top is exaggerated, it will resemble *e*, as in line (2). If the upward stroke of *r* is straight, the downward stroke will usually tend to curve too much, as line (3).

In the practice of the *e–r–e–r–e–r* combination, it is best to indicate the rhythm by pronouncing the names of the letters, as *e–r–e–r–e–r*.

(3) Directions for application.

The script models, *arrears* and *runners*, *Advanced Book*, p. 32, should be thoroughly practised, as they not only present *r* in connection with other letters already studied, but also afford a review of these letters; namely, *a*, *e*, *s*, *u*, and *n*. The regular and there-

fore clear spacing between the letters is especially to be observed and followed in practice.

The second style of *r*, *Advanced Book*, p. 42, is not new by any means, as some seem to suppose, but has been in use several hundred years. Its chief advantage is that it can be made slightly more rapidly than the first style of *r*. It is quite as legible when made correctly. But precision and accuracy are indispensable if it is to be made so that it cannot be confused with *v*, *n*, or *x*.

The second form of *r*.

This type of *r* is made by combining the first stroke of *m* and the last stroke of *w*. Be sure to retrace the downward stroke to avoid the appearance of a *v*, as in Fig. 28, line (1). Swing the final stroke up to prevent a resemblance to *n*, as line (2), and do not retrace the upward stroke so far that it will resemble *x*, as line (3).

(1) *The correct form.*

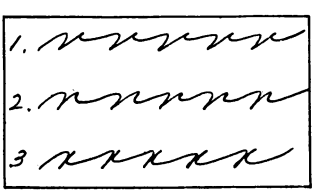

Fig. 28

The count for this *r* is *1–2*, the *1* slightly prolonged and the *2* staccato or short and quick.

The *capital C* is another of the direct oval group of letters. A review of the direct oval movement exercise and capital *O* will be an appropriate and helpful preliminary practice for *C*. In the *Advanced Book*, pp. 34, 35, 36, especially p. 34, **Exercise No. 1**, there are directions that combine *C* and the retraced oval in a specific movement drill. Here one may direct the child's attention to the correct form of the letter through questions as follows:

How to teach the capital *C*.

(1) *General directions.*

In what direction is the first stroke of the *C* made?

Is the first stroke straight or curved?

Is the starting point the highest point in the letter?

Which is wider, the loop in the *C* or the part to the left of the loop?

What is the length of the loop?

In what direction should the pen be moving when it is lifted from the paper?

These questions should help the pupils form a correct idea of the chief features of the letter and the movement required to write it. It will be beneficial here to swing with the dry pen over the copy a few times to get definitely the actual feeling of the movement in making the letter.

The next step is to put the hand in motion, then at the right instant write *C* and without hesitating complete four ovals around it. Count *1–2–3–4–5–6*, with the value of the *1* count very much less than, possibly one-half that of, the succeeding counts. This is due to the fact that it represents the shortest stroke in the letter.

Exercise No. 2, on page 34, *Advanced Book*, is one that will constrain pupils to develop the ability to make *C* with the muscular movement. The oval is a full space high and *C* a little less than a full space. The count is *1–2–3–4–5–6* for the retraced oval, and *1–2, 1–2, 1–2*, for each group of three *C*'s. The count for three *C*'s may also be given as follows: *1–2, 3–4, 5–6;* or *1 swing, 2 swing, 3 swing.*

While the form of the *C* is not to be neglected, the chief aim in the practice of this drill is to develop and establish securely a good, free, and accurately controlled swinging movement. An important item is to have the lines in *C* as light and smooth as those of the retraced ovals.

In making *C*'s, the next practice step, the count should be, as stated in *Advanced Book*, p. 35; *Elementary Book*, p. 30, *1–2*, *3–4*, or *1–swing*, *2–swing*, etc. The number of *C's* to be made in a minute is determined by dividing 200, the number of ovals per minute, by 3. Remember that the aim is to learn how to make good letters at the rate of speed that is demanded in practical writing.

(2) *Directions to secure correct form.*

In Fig. 29, (1) shows *C*'s that were made too slowly; (2) *C*'s that are too narrow; (3) *C*'s with tops too narrow; (4) *C*'s with loops mere dots.

While learning to make *C* with the muscular movement, some pupils may tend to make it with an impulsive swing brought to a sudden full stop of the *writing machinery* at the end. Special training is needed to enable them to make *C* with a free movement and still reserve the power to continue the movement in forming other letters of a following word.

(3) *Directions for application.*

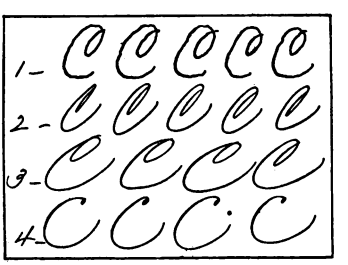

Fig. 29

The first line *Co*, *Advanced Book*, pp. 36 and 65, and the first line, *Advanced Book*, p. 31, are suggested for practice to develop the desired skill. When the first letter following *C* makes necessary a slight stop in the movement, as *o* or *a*, this stop should emphatically be utilized as an aid in acquiring better control. Pupils will realize its advantage by first practising *Co* as a unit with the counting control expressed by the phrase *capital C–o*. When they respond to this with confidence, pupils will find it easy to control the

pen in writing the remainder of the word, to *capital C–o, m–e,* the comma, as elsewhere in these counting devices, marking a slight stop, at the top of *o*. In writing *Come* it is best to allow a slight pause *after* the *o* is made; but in *Cannon,* it is necessary to stop also momentarily *before* the *a* is made. Therefore in having class drill on the word *Cannon* the naming of the letters should be as follows: *Capital C, a–n–n–o, n.*

The chief faults to be looked for are shown in Fig. 30.

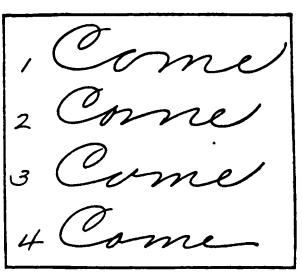

Fig. 30

(1) The *o* is finished by a stroke in the wrong direction; (2) the spacing is irregular and ill proportioned; (3) the *o* resembles a *v*, and there is an angle in the top of the *m*; (4) the final stroke is made in the wrong direction.

How to teach the small *c*. (1) *General directions.*

The movement making *c* is quite like that of *i*, the only difference being the dot or *hook* in the top of *c*. This dot or *hook* is what gives distinctive character to *c*, differentiating it from *i* or, perhaps, *e*. The downward stroke of *c* should for study purposes be compared with the downward stroke of *o*. Although this stroke may be somewhat curved without rendering it illegible, a nearly straight downward stroke gives it a very pleasing appearance. The count is *1–2* for each *c*, with a slight accent on the *1*. Five *c*'s may be counted as follows: *dot 1, dot 2, dot 3, dot 4, dot 5.*

The writing lessons for teaching *small c* are found in the author's *Elementary Book*, p. 32, and *Advanced Book*, p. 37.

If the dot is omitted as in Fig. 31, line (1), the letter will resemble *i*; if there be too much circular motion in the downward stroke, the letter will have an ungainly appearance, as in line (2). (2) *Directions to secure correct form.*

In writing the word *access*, *Advanced Book*, p. 37, as a movement exercise, stop the movement slightly at the top of each *c* and at the bottom of each *s*. See that dots or hooks are in the tops of the *c*'s, that an open loop is in *e*, and that each *s* has a sharp top and is closed at the bottom. (3) *Directions for Application.*

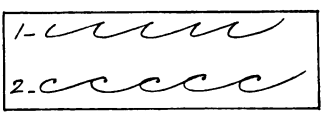

Fig. 31

The capital *E* is another of the direct oval group of letters. For preliminary practice the direct oval, *Advanced Book*, p. 15, and the capital *C*, p. 35, should be reviewed. The specific exercise, *Advanced Book*, p. 38, should then be traced with the dry pen to get the motor sensation of its form and size, after which there should be thorough practice with ink to the count of *1–2*, *3–4*, *5–6*, *7–8*, *9–10*. Begin the *E* with a dot. Make the top and bottom nearly the same size. The top and bottom consist of parts of two small circles. **How to teach the capital *E*.** (1) *General directions.*

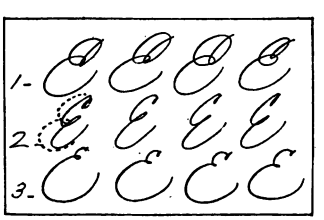

Fig. 32

For lesson directions see the author's *Advanced Book*, pp. 38 and 66.

The attention of the class may be directed to the critical points in the form of the letter by questions as follows:

Should *E* occupy the full space between two blue lines? Does *E* begin with a dot? Where is the loop in *E* located? In what direction does the loop seem to point? In completing an *E*, in what direction should the pen be moving as it is lifted from the paper?

(2) *Directions to secure correct form.*

Make *E* to a count of *1–2–3*, or *dot, 2–3*, with a slight accent on the *1* or *dot*. **Exercise No. 2**, p. 38, *Advanced Book*, is excellent for use in developing continuity of motion after making the *capital E*. The count for this exercise is *1, 2–3–4–5–6–7*. Note the number to be made on a line.

Pupils should make about forty-five good capital *E*'s in a minute. Common faults are illustrated in Fig. 32. (1) instead of the dot at the top there is a loop, which, moreover, touches the loop in the middle of the letter; (2) the left side of *E* is too flat, and reveals lack of the circular motion; (3) the *E* is not well proportioned, that is, the top is too small, and the lower part is too large. In a well-formed *E* the loop invariably points directly toward the right or possibly slightly downward, but never upward as in line (2).

How to teach the small *w*.

(1) *General directions.*

The *w* is a combination of *u* and the last part of the small *o*. This fact should be clearly perceived by the class.

This lesson will be found fully developed in the author's *Advanced Book*, p. 39, and in the *Elementary Book*, p. 28.

(2) *The development of correct form.*

There is no better way to give the pupils the idea of the correct formation of a letter than by comparing it with letters they have previously practised, parts of which are used in the construction of a new letter.

Suggestive questions may be used to direct attention to critical points. Of what letters previously practised is the *w* composed? Are there *points* or *turns* at the bottom of the *w*? Compare the width of the last part of the *w* with the width of the first part. Is the connecting line between two *w*'s straight or curved? These and similar questions may be asked to focus attention on the correct form.

Pupils nearly always make *w* too wide. This fault may be corrected (1) by having pupils leave a space between two *w*'s a little wider than a *w*; and (2) by having them make the *w*'s narrow enough to write four groups of four *w*'s each — 16 *w*'s — on a line. See *Advanced Book*, p. 39.

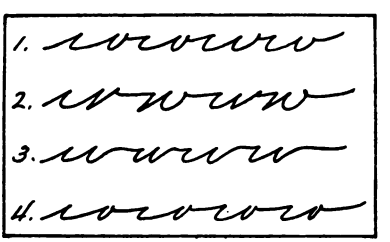

Fig. 33

Count *1–2–3* for each *w*, and say the *2–3* more quickly than the *1*, as $\overline{1}\ \overline{2}\ \overline{3}$. Pause slightly in finishing the *w* and see that the first part is like *u*.

The faults which the teacher may expect are shown in Fig. 33. In line (1) the *w*'s are too wide and the spacing between them is too narrow; in line (2) there are angles, and not turns, in the bottoms of the *w*'s; in line (3) the third point or dot in the top of the *w* is omitted; in (4) the first part is too wide and the last part too narrow, making *w* resemble an *i* and a carelessly formed *o*, or a *v*.

(3) *Directions for application.*

The word *answers* can be written four times on a line, with proper and regular spacing, as just above defined, between letters. To do this will constrain pupils to make *w* narrow. In spelling the word

in class drill, a slight pause in the movement should be suggested at the bottom of *s*, and another after the *w*, as *a–n–s*, *w–e–r–s*. A little extra time is required to finish *w* properly, and fortunately extra time is given by pronouncing the *w* properly. See that no angles appear in *n*, and give time to form the top of *r* correctly.

How to teach the small *v*.

The small letter *v* is a combination of the last part of small *m* and the last part of the small *w*. Begin *v*, as in beginning *m*, with a combination of the *over* and the *under* motion, and finish it with a point and a horizontal curve. Make a slight pause in finishing this letter.

The lessons on the *small v* may be found in the author's *Advanced Book*, p. 40; and *Elementary Book*, p. 29.

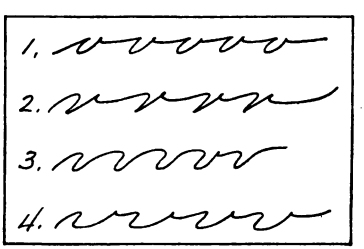

Fig. 34

You may find such faults as those shown in Fig. 34. In line (1) the *v*'s resemble *o*'s that are left open, probably because of the wrong movement in making the first part of the letter, a movement which gives it an angular top and not a *turn*. In line (2) the *v*'s resemble one style of *r*, because they are sharply angular at the bottom. In line (3) the identity of the letter is in doubt, because the dot or point in the last part of the *v* is omitted. In line (4) the *v*'s are far too wide, and irregular both in size and spacing.

Questions may be asked as follows: From what letters do we derive the parts which are combined to make letter *v*?

How many turns are made in a correctly formed *v*? How many angles? What kind of movement or motion is made between the *v*'s? What kind of connecting line?

Count *1–2* for each *v*; and have pupils swing out just enough between the *v*'s to make four groups of five letters each on a line.

In the application of this lesson give special attention to the writing of the words *river, revive, vain, move, waive.* These words comprise letters previously practised.

The *x* may be made in three different ways; but the way most commonly practised, and least likely to cause the letter to lose its identity, is that shown in the copies referred to above. The *x* involves the *over-under* motion, as in the last part of *m* and *n*, and an *upward* stroke just halfway between the two turns. The *x* will be crossed more accurately by those who habitually make the stroke *upward.* The stroke making this line should have the same slant as the connecting strokes, which are *always* upward. Words in which *x* is used should be written entirely through, and then the *x* crossed, *i*'s dotted, and *t*'s crossed.

How to teach the small *x*.

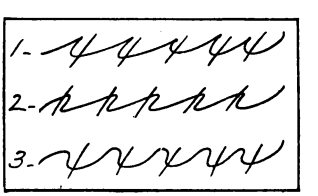

Fig. 35

It is well to note any such *x*'s as are shown in Fig. 35. The chief cause of these faults is the crossing of the *x*. It should slant more and should cross the downward stroke. Corrective exercises will be necessary in individual cases which the teacher will easily find by casual inspection of the pupils' work.

The Upper Loop Letters

Those who write fluently, easily, and rapidly, without fatigue, depend, as we have already shown, almost entirely upon the muscles of the arm and shoulder. These larger muscles are so trained and brought under control as to be used almost exclusively, not only in carrying the hand and pen across the page but also in making the countless detailed and specific movements that form the letters, weave them into words, and the words into sentences.

It is therefore dangerous to suggest even a slight use of the *finger movement* in writing. It certainly should not be suggested without proper qualification. But it is the consensus of opinion that a slight movement of the fingers *in connection with, but subordinate to, the arm movements* may well be used in making the upper loop letters.

Teaching the small *l*.

The *l* forms the basic drill for the development of all the upper loop letters, *l*, *b*, *f*, *h*, *k*, and *d*. It consists of a well-curved upward stroke and a downward stroke that is as nearly straight as it can be made *without stopping the movement.* Pupils should be taught to make *l's* to a single count, and at a rate of speed which conforms to the movement and speed required in general writing. See the author's *Muscular Movement Writing, Advanced Book*, p. 47.

The first exercise (*Advanced Book*, p. 47) is valuable in developing skill in writing the upper loop letters. Beginning, as it does, with the straight-line movement forward and backward along the line of vision, when the paper is properly placed, it establishes the slant of all upper loop letters. It is to be made a full space high with a continuous

movement and an even, regular count of *20*, as follows: *1–2–3–4–5–6–7–8–9–10 — 1–2–3–4–5–6–7–8–9–20.* Pupils should be instructed to make the straight-line motion at first for from seven to ten counts, and then gradually to change to the loop motion without changing the speed. This has proved to be a better plan than to have pupils make a definite number of straight lines and then of loops. It is advisable to let the class practise this exercise a few minutes before specifying the number of times it is to be written on a line. This enables the pupils to get the feeling of the necessary movement, before they are called upon to concentrate their attention upon spacing and other features involved. This exercise may well be taken as a preliminary drill in each lesson in which upper loop letters, *l*, *b*, *f*, *h*, *k*, and *d*, are to be studied and practised.

Questions may be used to direct attention to critical points as follows: Is the top of the *l* angular or round? What is to be the height of this letter? Is the upward stroke straight or curved? What of downward stroke? Should the turn at the bottom be broad or narrow? Does the *l* begin above, below, or on the base line? **The critical points.**

Look for faults, especially such as those shown in Fig. 36. In (1) the tremulous lines show that the rate of speed was far too slow; (2) the *l*'s are too tall; (3) the slant too great, probably because the upward strokes were too nearly straight; (4) the *l*'s are too narrow.

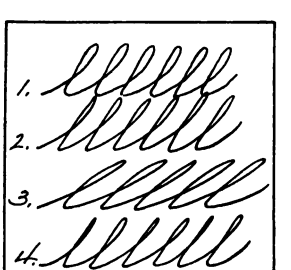

Fig. 36

Regulate the movement by a count of *a1–2–3–4–5–6* for each group of six *l*'s. The very short *a* preceding the first count is a signal for the first swing upward. Pupils should make about 18 groups of 6 *l*'s each at first and gradually increase the speed until they can make 23 groups in a minute. This is the average speed at which good *l*'s must be made in general writing.

The rate of speed.

In practising, the words *miller* and *allow* (see *Advanced Book*, p. 48) are particularly good words for advanced classes. In the former word aim to make a space between letters equal to the width of the *m* (see copy); and in the latter word make the space between the letters equal to the width of *w*.

Until the pupils become accustomed to the correct movement the teacher should name the letters, thus $\overline{m}$–$\bar{i}$–$\bar{l}$–$\bar{l}$–$\bar{e}$–$\bar{r}$ and $\bar{a}$–$\bar{l}$–$\bar{l}$–$\bar{o}$–$\overline{w}$. Prolong the sound of such letters as *m* and *w* as formerly suggested. See that pupils make the *l*'s alike; avoid angles in *m*; close *o* and *a*; and form properly the top of *r*.

Each class of letters is based upon some particular movement exercise. Throughout this series the appropriate movement exercises for each lesson have either been given in the lesson or suggested in the text. Each lesson, for instance, in which upper loop letters are taught, should begin with a drill on the first exercise on p. 47, *Advanced Book*. For reference see the author's *Advanced Book*, p. 49, and *Elementary Book*, p. 39.

How to teach the small *b*. (1) *General directions.*

The small *b* is a combination of the *l* and the last part of the *w*, both of which were presented in the word *allow*,

Advanced Book, page 48. These letters should now be reviewed. *Review letters previously taught whenever they are used in whole or in part in the construction of new letters.* This provides systematic and thorough review of all important letters.

Direct attention of the pupils to the points in previous practice that are produced in making the letter. Ask questions as follows: Of what letters that you have practised is *b* made up? How high should the top of *b* extend above the line on which you are writing? Should it reach the line above? Should the top be round or sharp? Should the bottom part be sharp? How high should the final dot be placed? What is the final stroke of the letter?

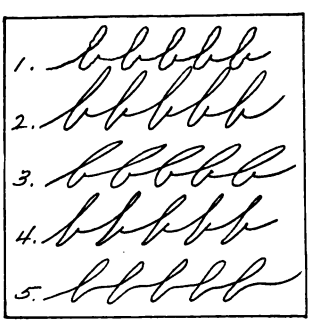

Fig. 37

The count for *b* is *1–2*. The approximate rate of speed is 15 groups of 5 *b*'s in each, in a minute. This is rapid enough to insure a free movement but not so rapid as to prevent the pupils from forming the letters well.

(2) *Directions to secure correct forms.*

Five common faults are shown in Fig. 37. In (1) tremulous lines indicate a slow and excessive finger movement. In (2) the loops are too long. In (3) the letters slant too much, because the up strokes do not curve enough. In (4) the tops and bottoms of the letters are not round. In (5) the final dot which distinguishes the *b* from the *l* is omitted.

The words *bubbles* and *sublime* are particularly good words

for practice. Pupils should check the movement slightly in making the final dot of each *b*. This may be suggested to pupils by prolonging slightly the sound of *b:* as, $\bar{b}$, $\bar{u}$–$\bar{b}$, $\bar{b}$, $\bar{l}$–$\bar{e}$–$\bar{s}$ and $\bar{s}$-$\bar{u}$–$\bar{b}$, $\bar{l}$–$\bar{i}$–$\bar{m}$–$\bar{e}$. These prolonged sounds or pauses should not be too strongly emphasized, — just enough to cause pupils to think of the letters to be formed and to stimulate them to control definitely the necessary movement in making the letters. These words give practice in making *b* as an initial and as a medial letter.

(3) *Directions for extended practice.*

The letter *f* may be prepared for by reviewing the exercise in *Advanced Book*, p. 13. This gives practice in the extended movement necessary in making this letter. The motion of the pen in making *f* is quite like that in making *b*, the chief difference being in the length of the former letter. The top of *f* is round as is that of *b* and should nearly reach the line above the base line; the bottom, also round, should extend about half the space below the base line. The upward stroke of the lower part of *f* should reach the base line and there join the down stroke. The final stroke is a horizontal curve adaptable to the next following letter, if any.

How to teach the small *f*.

For reference, see the author's *Advanced Book*, p. 50; *Elementary Book*, p. 40.

The count as given in copy is *1–2* for each *f*. As to the number per minute, see *Advanced Book*, p. 50.

Attention may well be directed to critical points by suggestive questions as follows: How high should the top of *f* reach? How far below base line should the bottom of *f*

extend? Should the top and the bottom be angular or round? Should the down stroke be straight or curved? Where should the final up stroke join the down stroke? What is the direction of the final stroke?

Common faults are illustrated in Fig. 38. In (1) the *f*'s were made too slowly. In (2) the *f*'s are too long. In (3) they are sharply pointed, and in (4) the final up stroke joins down stroke too high.

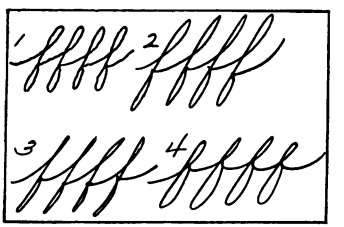

Fig. 38

In making the application in the lesson the writing of the words *finest* and *baffle* must be done with care. The movement is checked slightly on completing the *f* and the *b*. All the loops alike should be regular in size and form.

How to teach the small *q*.

The letter *q* is a combination of *a* and the lower part of *f*. It is therefore advisable to take it up for study and practice directly after *f*. It is not without benefit to the pupils to practise a few minutes both *a* and *f* in preparation for the construction of the new letter *q*. As in *a*, so in *q*, the top must be closed as in a point. The lower part of the letter extends about half a space below the base line of writing. It is necessary sometimes to caution pupils to make a round, not a sharp turn at the bottom of the letter. With a count of *1–2–3*, keep an optimum speed rate as previously determined.

See *Advanced Book*, p. 51; *Elementary Book*, p. 41.

Attention should be given to the critical points as shown in Fig. 39. The *q*'s in (1) are open at the top. Those in

(2) are angular at the bottom. Those in (3) show the joining too high.

In applying the lesson to the writing, the words *squire* and *sequel* require a momentary stop in the movement in joining the final up stroke with the down stroke at the base line, as indicated by commas in the following: *s–q*, *u–i–r–e* and *s–e–q*, *u–e–l*.

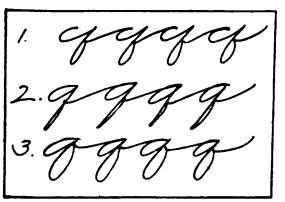

Fig. 39

It may be necessary to repeat that *s's* are sharp at top and closed at bottom; that open loops are in *e's* and *l's;* and an angular top and shoulder are needed in *r*.

How to teach the small *h*.

The *small h* was taught in the lesson *How to Teach Small Letters*, p. 30.

The small *k* is the last of the upper loop group of letters. The loop in *k* is exactly like that in *h*. The last part of *k* needs close study and careful practice until it can be made just right and easily. The loop and the stop at the base line are followed with a full over motion that retraces the lower part of the down stroke of the loop; then folding under it forms a very small oval. The movement should be checked slightly after forming the little oval or loop, and the second down stroke should be made as nearly parallel with the down stroke of the loop as possible. The bottom of *k* should be narrower than the bottom of *h*. See *Advanced Book*, p. 53.

How to teach the small *k*.

(1) *General directions.*

Attention may be directed to the critical points through suggestive questions. How tall is the loop in *k*? Should the top of the loop be pointed or round? How does the

width of the bottom of *k* compare with the width of the bottom of *h*? Should the two down strokes in the bottom of the *k* be on the same or different slants? Questions similar to these may well be asked.

The count for *k* is more than two and less than three. The phrase *1 an' 2, 1 an' 2, 1 an' 2, 1 an' 2*, when said just right, indicates the rhythm and time of the movement in making a group of four *k*'s. Prolong the *1* a little on account of the length of the loop and the slight stop at the base line, as *1 an' 2*.

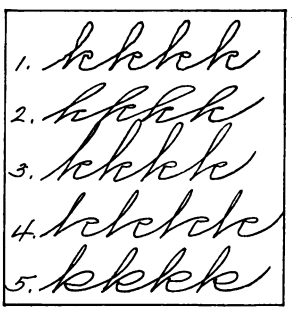

Fig. 40

The faults that commonly occur in writing *k* are illustrated in Fig. 40. The tremulous lines in (1) show lack of freedom in movement, an overstrain perhaps to write with a finger movement. The slant shown in (2) is too marked. In (3) the loops are quite too long. The lower part of *k* in (4) is too wide by much, and in (5) a very familiar fault is in the size of the loop of the last part of the letter.

(2) *Directions for securing correct form.*

See that pupils in practising the words *thinkers* and *bankers* make the loops alike in *b*'s, *h*'s and *k*'s. Remind them if necessary about taking ample time to form correctly the upper part of the top of *r*. The last part of each *b*, *h*, and *k* should be finished carefully.

(3) *Directions for application.*

Begin *t* with a short, full under motion that starts exactly *on* the base line. The top of *t* should be short and so well

retraced as to appear like a single straight line. Do not form a loop in the top of *t*. The height is somewhat less than that of *l*. If pupils make a small *e* before each *t* (see **Exercise** 1, p. 54, *Advanced Book*), a well-curved initial stroke in the *t* will be developed. The *t* is crossed near the top. Observe the final *t* made without a cross stroke. Make the top short and sharp. The final stroke is a short *over motion* retracing slightly the down stroke. See *Advanced Book*, p. 54.

How to teach the small *t*. (1) *General directions.*

Develop the letter by asking questions on the critical points. Is *t* a retraced line or a loop? How does the height of the *t* compare with that of *l*? What is the distinguishing characteristic of this letter? How is it distinguished from *l*?

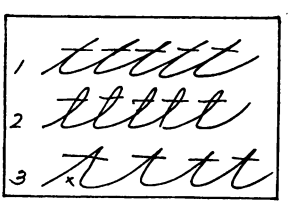

Fig. 41

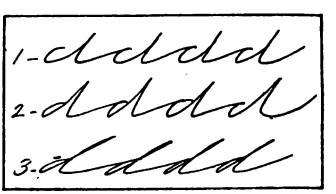

Fig. 42

The faults shown in Fig. 41 are frequently met in writing. The *t*'s of (1) slant too much, because the up strokes are too nearly straight. The *t*'s of (2) have loops in the tops. The tops of the *t*'s in (3) are not retraced, probably because the upward stroke is not curved enough.

(2) *Directions for securing correct form.*

In the words *intent* and *tumults*, special attention is to be directed to the formation of the *t's*, *m*'s and *n*'s.

(3) *Directions for application.*

How to teach the small *d*.

For copy and suggestions avoid the common faults in Fig. 42. Note the following:

(1) The oval is not closed.
(2) The top is not retraced.
(3) The oval is too flat and the top slants too much.

See *Advanced Book*, p. 55; *Elementary Book*, p. 37.

How to teach the capital *S*.

The capital *S* is a combination of the upper loop, as in *l*, *b*, *f*, *h*, and *k*, and a part of a flat oval. Practice of the upper loop letters serves as a preparation to make capitals *S* and *G* of which the upper loop forms a part. See *Advanced Book*, p. 36; *Elementary Book*, p. 45.

The angular endings of *S*, *G*, *I*, *T*, *F*, and *B* are recommended to make it convenient to unite these capitals and the letters following in words. The class may be questioned as follows: Where does the initial stroke of *S* start? Is the initial stroke straight or curved? Is the top of *S* pointed or round? At what height do the upward and the downward lines cross? See suggestions on p. 56, *Advanced Book*.

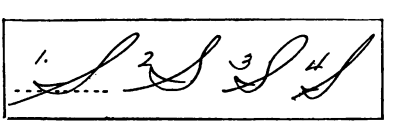

Fig. 43

Avoid the common faults shown in Fig. 43. Note the following:

(1) The initial stroke starts below the base line and is too nearly straight.
(2) The lines cross too near the top, making the top too small.
(3) The lines cross too near the bottom, making the top too large.
(4) There is not enough space between the upward and the downward strokes.

Exercises No. 1 and **No. 2**, p. 57, *Advanced Book*, should be reviewed as a preparation to make the *G*. Follow the suggestions on p. 57, *Advanced Book*, in developing this lesson. See *Advanced Book*, p. 57, and *Elementary Book*, p. 44.

How to teach the capital *G*.

Pupils will always be benefited by tracing each new exercise with the dry pen before attempting to make it.

This tracing trains the muscular sense whereby pupils know *how it feels* to make the movement required to form the letters correctly. It should always be done to correct time or rhythm, regulated by the teacher's count.

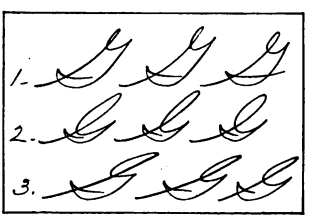

Fig. 44

Question pupils as follows: In what particulars is the *G* like the *S*? In what particulars do they differ? At what height do the lines cross? At what height is the *point*? See **No. 2**, p. 57, *Advanced Book*.

Avoid the faults shown in Fig. 44.

(1) The loop is too short.
(2) The loop is too long.
(3) The top slants too much because the initial stroke is too nearly straight.

The Lower Loop Letters

All the lower loop letters (*g*, *y*, *z*, *j*, *p*) are based upon a combination of the straight line and the reverse oval movement. The first exercise on p. 58, *Advanced Book*, is an excellent one to use in developing the movement used in making these letters. See *Advanced Book*, p. 58; and *Elementary Book*, p. 47.

How to teach the small *g*.

Count 10 twice for each exercise, as follows: *1–2–3–4–5–6–7–8–9–10—1–2–3–4–5–6–7–8–9–20.* Have pupils make the straight lines during nearly all of the first ten counts and then gradually change to the loop motion without changing the time. In counting *1–2* for the *g*, prolong the second count slightly to give time to form the loop.

Ask questions as follows: What letter previously practised forms a part of the *g*? Is the oval part of the *g* open or closed? If left open what letter might it resemble? Is the bottom of the loop sharp or round? How long is the loop? (It should extend down about halfway between two blue lines).

Attention should be given to critical points as indicated in Fig. 45.

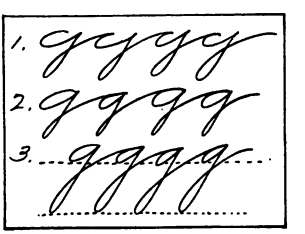

Fig. 45

(1) These *g*'s resemble *y*'s because the ovals are open.
(2) The loops are too narrow.
(3) The loops are too long.

The first part of the *y* is like the last stroke of *m*, *n*, and *h*, and like the first part of *v*. The loop, of course, is like the loop in the *g*. See *Advanced Book*, p. 59; *Elementary Book*, p. 48.

How to teach the small *y*.

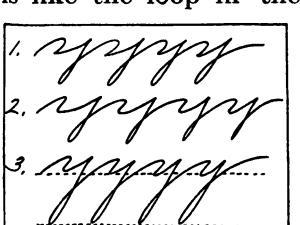

Fig. 46

Have the pupils review the first exercise on p. 58, *Advanced Book*, as a preliminary movement drill.

The *y* is a combination of parts of what letters? How long is the

Suggestive questions. loop? Is the downward stroke straight or curved? Is the bottom of the loop pointed or round?

Study Fig. 46 and note the following critical points:

(1) The first part of the *y* has an angle at the base line where an under motion should be made.
(2) The tops of the *y*'s are too wide and the loops are too narrow.
(3) The loops are too long.

How to teach the small letters *z*, *j*, and *p*. Follow the directions for writing these letters given in the *Advanced Book* of *Muscular Movement Writing*, on pp. 60, 62, and 63 respectively.

Follow the directions on pp. 69 and 70, *Advanced Book*. Observe that the first part of the *H* curves much more than does the first or corresponding part of the *K*.

How to teach the capitals *K* and *H*. Avoid the faults shown in Fig. 47.

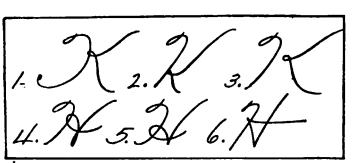

Fig. 47

(1) The first stroke is curved too much.
(2) The last part of the *K* is joined to the first part too near the bottom.
(3) The two parts of *K* are not united.
(4) There is a loop at the bottom of *H*.
(5) The loop uniting the two parts of *H* is too low.
(6) The lines forming *H* are too nearly straight.

See *Advanced Book*, p. 71; and *Elementary Book*, p. 54.

How to teach the capital *W*. This letter is based almost wholly on the straight-line movement. Therefore, **Exercise No. 1**, p. 15 of the *Advanced Book*, should be reviewed in connection with the specific drill, first line, p. 71, *Advanced Book*, as a preparation to make the *W*.

The first part of the *W* is well curved, like the first part of *H* in the preceding lesson. The point in the center at the top is higher than the first part of the *W*. The final stroke is a short over motion. Have pupils make a slight stop in the movement at the base line on the first downward stroke.

Note the following critical points, Fig. 48:

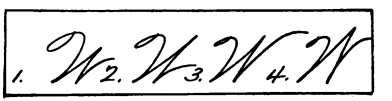

Fig. 48

(1) The point at the center is too short.
(2) The points at the bottom are too close together.
(3) The final stroke is too long.
(4) The bottom points are retraced.

The *J* belongs to the reverse oval group of letters. Have pupils practise the reverse oval exercise, *Advanced Book*, p. 15, as a preparation to make the *J*. The practice of the specific movement drill, *Advanced Book*, p. 72, first line, establishes the form of the *J* and makes certain the application of the muscular movement. Count six for the reverse oval and the top of *J*, and finish the letter on the seventh count.

How to teach the capital *J*.

See the author's *Advanced Book*, p. 72; and the *Elementary Book*, p. 63.

The second line exercise, p. 72, *Advanced Book*, is to be used in developing the ability to continue the movement after making the *J*. A very helpful count for this exercise is *swing 2–3–4–5*. The word *swing* suggests the full oval motion necessary to make the top of *J*.

Questions may be employed as follows to direct attention: In making *J* what direction should the pen be moving

when it touches the paper? How do the top and bottom of *J* compare in length? in width? Where do the lines cross?

Avoid the faults shown in Fig. 49.

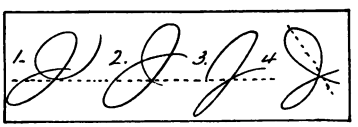

Fig. 49

(1) The initial stroke is made downward.
(2) The lines do not cross at the base line.
(3) The first upward stroke does not curve enough.
(4) The top is made on a back slant.

Follow the directions on p. 73, *Advanced Book*, in developing the lesson on the *I*.

How to teach the capital *I*.

The following questions are suggestive: In what direction should the pen be moving when it touches the paper? In what direction should the pen be moving when it is lifted from the paper? Where do the lines cross? See *Advanced Book*, pp. 73 and 74; and *Elementary Book*, p. 62.

Avoid the faults shown in Fig. 50.

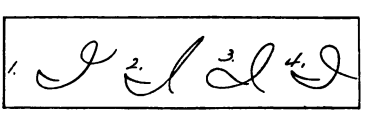

Fig. 50

(1) The pen was moving *downward* when it touched the paper.
(2) The top of the letter is sharply angular.
(3) The letter is finished with a turn and swing instead of an angle and swing.
(4) The top slants backward.

See the *Advanced Book*, p. 78; and the *Elementary Book*, p. 56.

Follow the directions on the above pages in developing the lesson. Note particularly the flat loop and final stroke, as this will serve as a preparation to complete the *L* properly.

How to teach the capital *Q*.

See the *Advanced Book*, p. 79; and the *Elementary Book*, p. 57.

In making *L* the pen should be in motion when it touches the paper and it should continue in motion until it is lifted from the paper. The *L* is made with three well-controlled swings of the pen. The movement may be regulated by counting *1–2–3*, or by saying *swing 2, swing*. The latter phrase suggests action. The purpose of the first exercise on p. 79, *Advanced Book*, is to put the hand in motion before making the *L*, and thereby make the application of a free movement certain.

How to teach the capital *L*.

Question pupils as follows: In making the *L*, in what direction should the pen be moving when it touches the paper? In what direction should the pen be moving when it is lifted from the paper? The lines cross each other at two points; locate the upper crossing of the lines. Is the top pointed or round? What is the direction of the upper loop? What is the direction of the bottom loop? Is the final stroke above or below the base line? What other letter is finished just like the *L*?

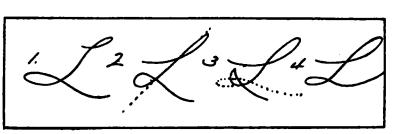

Fig. 51

Avoid the faults shown in Fig. 51.

(1) The lines cross too high, making the top too small.
(2) The downward stroke is too nearly straight.

(3) The bottom loop is not made flat on the line.
(4) The final stroke is above the base line.

The downward stroke in the *D* is made quite like the downward stroke in the *L* in the previous lesson. The small loop at the bottom of the *D* is like the loop at the bottom of the *L* except that it is much smaller. The final part of the *D* is like the corresponding part of the capital *O*. It would aid in the formation of the *D* to review the *O*, as given on page 17, *Advanced Book*. Be sure to have pupils loop the final stroke of the *D* around the starting point and swing *upward*. See *Advanced Book*, p. 80; and *Elementary Book*, p. 58.

How to teach the capital *D*.

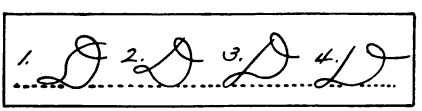

Fig. 52

Questions may be asked as follows: In what direction should the pen be moving when it touches the paper? In what direction should the pen be moving when it is lifted from the paper? At how many points does the *D* touch the base line?

Avoid the faults in Fig. 52.

(1) The downward stroke is curved too much.
(2) and (3) The *D* does not touch the base line at two points.
(4) The top of the *D* is not closed.

The stem of the *T* and *F* is a slanting line, slightly curved at the top, and well curved at the bottom. It is quite like the downward stroke in *S*, *L*, and *D*. By omitting the upward stroke in a correctly formed capital *S*, the stem of a correctly formed *T* or *F* would be

How to teach the capitals *T* and *F*.

made. A review of the *S*, see p. 56, *Advanced Book*, would aid in establishing the form of the stem of the *T* or *F*. See *Advanced Book*, pp. 81 and 82; and *Elementary Book*, p. 46. See pp. 81 and 82, *Advanced Book*, for further suggestions.

These letters are combinations of the straight-line and the reverse oval movements. As a preparation to make these letters the general movement drills on page 15, *Advanced Book*, should be reviewed. The purpose of the first exercise in each lesson (pp. 75, 76, 77) is to make certain that the hand is put in motion before making the letter. In making the *P*, *B*, and *R*, have the pupils *retrace* the first downward stroke in each letter. See *Advanced Book*, pp. 75, 76, 77; *Elementary Book*, pp. 64, 65, 66.

How to teach the capitals *P*, *B*, and *R*.

Follow the suggestions on the pages indicated above, in teaching these letters.

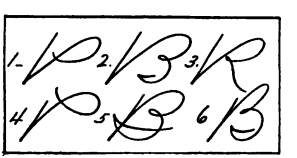

Fig. 53

Avoid the faults shown in Fig. 53.

(1, 2, and 3) The posts, or straight lines are not retraced.
(4) The final stroke crosses the *upward* stroke instead of the *downward* straight line or post.
(5) The *B* is closed at the bottom, whereas it should be open. See copy, *Advanced Book*, p. 76.
(6) The top of *B* is too narrow.

These letters are based upon the straight-line movement primarily, combined with a distinct *over-under* motion. The downward lines in the *U* and the *Y* should be parallel. There should be nicely rounded turns at the base line.

The *Y* should be finished with a short, full loop extending half the distance between two blue lines. The final stroke of *V* should be short. The pen should be moving toward the right side of the paper when it is lifted from the paper. See *Advanced Book*, pp. 84, 85, 86; and *Elementary Book*, pp. 59, 60, 61.

How to teach the capitals *U*, *Y*, and *V*.

Have the pupils avoid the faults indicated in Fig. 54. In (1), (2), and (3) the *U*, *Y*, and *V* are angularly pointed at the base line where these letters should be nicely rounded. In (4), (5), and (6) the first turns at the top are too narrow and the turns at the bottom, or base line, are too broad. The turns at the bottom should not be as wide as those at the top.

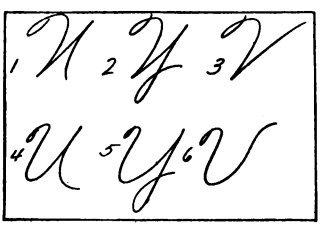

Fig. 54

CHAPTER IX

HOW TO TEACH FIGURES

FIGURES should be legible, small, and arranged in an orderly way. They are made best with a sharp, clear-cut line that evidences snap and quickness. An expert figure maker places the pen on the paper with precision, forms the figures, and lifts the pen quickly. How to teach figures.

See *Advanced Book*, pp. 43, 44, 45, and 46.

The plan of practice outlined in the pages above cited has proved effective in developing all the qualities just mentioned. By making figures *across* the blue lines as indicated in the *Advanced Book*, *regular and orderly arrangement* will be emphatically encouraged from the very beginning. By gradually reducing their size until the figures do not seem to be crowded when they are written on and between the lines, the *size and spacing will be regulated.* If the teacher counts to regulate the rhythmic time, *sharp* and *clear-cut lines* and orderly columns will quite certainly be developed. By making the figures on and between the lines in unison with the count, *accuracy, precision and speed will be secured.*

Legibility is a result of emphasizing in practice the chief characteristics of individual figures. Each figure must stand for itself. The legibility of a figure is not improved by its context, as is that of individual letters.

Certain figures are easily mistaken for each other; other

figures are never mistaken for each other. One never mistakes a 4 for a *3*, a *5* for a *6*; but *4* is sometimes made so that it resembles *7*, as in Fig. *55*. Made correctly these figures are quite easily distinguished. But it is due to the careless tendency shown in Fig. *55*, against which precaution must be taken in practice, that possible confusion occurs. Other figures sometimes mistaken for each other are *7* and *9*, *1* and *0*, *0* and *6*, *0* and *8*, *5* and *3*, *0* and *9*.

A discussion of careless tendencies in making figures never fails to create class interest in the subject. By examining figures one by one to detect possible faulty tendencies, the correct formation of each figure is emphasized and the reason for making it as in the model is pretty clearly brought out.

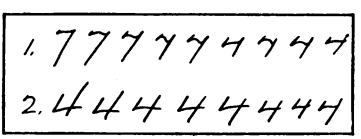

Fig. 55

For instance, in discussing figures *4* and *7*, the teacher may write a line of *7*'s, similar to those in Fig. *55*, on the blackboard. The class is to observe and note what change takes place in the formation of the figure *7* that causes it to resemble a figure *4*. It will be noted that the points in the top of the *7* are exaggerated and the final downward stroke stops too short. If the final downward stroke had been continued farther; *i.e.* well below the base line, the product would be an unmistakable *7*. This, then, should be a sufficient reason for finishing *7* with a line that reaches well below the blue line.

In like manner the figure *4* should be considered. It will be observed that the same kind of strokes is employed in the last few specimens of *4* in Fig. *55*, as in the first few;

but there is a change in the placing of the last stroke. In the first *4*, the last stroke begins at a point *higher* than that of the first stroke, and is ended abruptly just below the lateral line. But in the last *4*, the final stroke begins barely above the lateral stroke and is carried too far below. This gives a good reason for beginning the last stroke high and ending it, or lifting the pen from the paper, just after the lateral line is crossed.

Figure 1 is a short, light, slanting line.

Figure 4 is made of light lines that are straight, or nearly so. It should suggest a small square or rectangle in appearance. The two slanting lines should be parallel, and the last line, somewhat taller than the first, should intersect the lateral line.

The characteristic features of the figures.

Figure 0, or naught, is like the letter *o* except as to size. It should be made round to avoid the appearance of the figure 1, and should be definitely closed at the top. Make it with pen in circular motion both before touching and in leaving the paper.

Figure 6 begins at a point a little higher than the other figures to prevent its being mistaken for the naught. The initial stroke is straight, which yields gradually to a well-rounded turn at the bottom and ends in a small loop.

Figure 9 is a combination of letter *a* and figure 1. The final stroke passes through the base line and ends somewhat below the base of other figures. This averts its possible resemblance to *0*. The *9* should be definitely closed at the top; for otherwise it may closely resemble figure *7*.

Figure 7 consists of a dot or a short slanting line, a short lateral stroke, and a slanting line extending to a point

below the base line. At least one half of the down stroke should be below the base line. The reasons for this have been stated in connection with Fig. 55.

Figure 2 is begun with a dot or a short slanting line. The top of the figure *2* should be neatly rounded, made with the *over* motion; and the bottom, made as the bottom of *4*, consists of an angle and a short lateral stroke made as the pen is being lifted from the paper. This style of figure *2* can be made more accurately and more rapidly than that with a loop. For this reason it is used more generally by expert accountants.

Figure 3 is begun with a dot or a short slanting line and is finished with two very small circular motions. Use a short lateral movement toward the left. The round motion at the center of the *3* should be so restricted as to produce an angle rather than a loop. The pen should swing to the left and upward as it is being lifted from the paper.

Figure 5 is begun with a short, straight, slanting line which is about one half the length of figure *1*. The bottom is just like that of figure *3*. A short lateral stroke, which should always be joined to the first stroke, completes it.

Figure 8 begins with a dot and the letter *s*, made with downward motion. The final stroke should pass upward through the initial dot.

The general features of figures.

The figures *1*, *4*, *5*, *6*, *9*, and *0* are made with the pen moving as it touches and leaves the paper. The figures *2*, *3*, *7*, and *8* begin with a definite starting point or dot. The figures *4* and *6* begin at a point above the other figures. The figures *7* and *9* are ended *at a point* below the base line and the other figures.

CHAPTER X

THE USE OF THE BLACKBOARD

THE blackboard is indispensable for class instruction in writing. It is the only practical means of showing whole classes by concrete demonstrations the important phases of the lesson, as well as the process by which good writing is done. Special emphasis should constantly be placed upon the *process of writing*.

The use of the blackboard.

By the use of the blackboard, the teacher who can wield the crayon skillfully can inspire confidence and can create initiative on the part of the pupils by appealing to them through the desire to emulate her skillful blackboard demonstrations. By the use of the blackboard the teacher can correct the prevailing faults of the entire class in the time that would be required to make the correction for one pupil individually. Not only is there economy of time in avoiding exceptions by the use of the blackboard, but by enlarging the correct and the incorrect letter forms upon the board, the contrast is made the more striking and vivid. The blackboard becomes the teacher's "*magnifying glass.*" However, the blackboard should not be used as a means of placing the copy before the pupils for study and visualization.

The use of the blackboard.

Pupils cannot reproduce on paper what they have not clearly conceived in the mind, and a clear conception of good writing results only from a careful study of good copies. To do this to the best advantage, pupils should have copies of the size and general style that they are expected to approximate in their own writing. And in order that pupils may visualize these copies to the best advantage, they should be studied at close range, not more than twelve or fifteen inches from the eyes.

Good desk copy necessary.

This study will be all the more profitable if done through the guidance of a teacher whose eyes have been trained to see in the copy what pupils may not see if left to themselves.

Those who are obliged to study the copy written upon the blackboard experience many disadvantages. Each of forty pupils in a class must necessarily view the copy from a different point in the room. Therefore the distance and angle at which the copy must be studied will vary greatly. And there are always points in the classroom from which it is difficult, if not impossible, to see the copy on the blackboard because of the reflection of the light.

Therefore, if the best possible results are to be achieved, pupils must be supplied with desk copies both because they afford an advantage in visualization, and because they reduce to a minimum the expenditure of energy and time of the teacher and the pupils.

CHAPTER XI

HOW TO TEACH THE PRIMARY BOOK

THE instruction in writing during the first two years of school should be consistent with the natural ability, both mentally and physically, of children from six to eight years of age. These younger children have neither the mental ability, nor the muscular control, especially of the smaller and finer muscles, that the more advanced children have. It is therefore necessary to simplify as much as possible the various steps to be taken by these younger children in learning how to write.

Correct habits of posture and pencil or penholding, script letter forming, and muscular movement must be taught. In order to avoid introducing all these difficulties at the very beginning, when the children are naturally least able to master them, it is proposed in this series of lessons to treat the difficulties, first singly and then to correlate them in such a manner as to make them serve as a foundation for the more technical training in writing that is given in the *Elementary Book* and the *Advanced Book* which follow in the more advanced grades.

Students of the nature and growth of children are of one mind in saying that children, on entering school at six years

of age, should not be forced to study and practise imitating the very small, mature writing of the adult.

Large letter forms should be used in teaching first grade children. The large forms are better for visualization because the children can be led more easily to see how letters are made when viewing large letters than when studying very small forms — just as one sees the details of an object better through the magnifying glass than with the naked eye.

The larger letter forms are conducive to freedom of movement, whereas small letters, which require a very fine coördination of the complex movements required to make them well, are conducive to cramped finger movement.

The Grading of the Primary Book

During the first term teach the large letters, words, and figures written with pencil on pages 7 to 30 inclusive. In order to obtain freedom from the beginning, it is best to begin with blackboard practice and continue this for several weeks, after which blackboard and paper practice may alternate. The purpose of the blackboard work is to build up concepts of standard letter forms and to check the tendency to write with the fingers, a tendency which many of the children may have already acquired.

What to teach the first term

The lessons at first should be brief. Children should not be burdened with too many directions. But the directions given should be made very clear.

While teaching the letters *i, u, w, e, s, m, n, r, o, a, c, v, x,* and words involving these letters, at the blackboard, the

writing should be four inches high. The boards should be ruled with horizontal lines two inches apart and the writing should occupy two full spaces. The paper used should be ruled, as usual, three eighths of an inch and the writing of the exercises on pages 8 to 19 inclusive should occupy two full spaces in height, to correspond with the arrangement of the writing on the board. In teaching the exercises on pages 20 to 30 inclusive, make *t, d, l, b, f, h, k,* two full spaces high and *reduce the letters previously taught to one space* in height. The *j, g, y, z, q, f,* and *p* should extend one full space below the base line.

The size of letters

When it is desired to furnish practice in using these new letters in words, the pen-written words at the bottom of pages 8 to 30 may be written large enough to correspond with the letters taught.

During the second term teach the remaining capital letters as shown by the pencil forms on pages 33 to 48 inclusive. First have these letters practised on the blackboard; after which they should be practised on the paper at the desks. The best size for the board work is four inches in height. The height of the capitals made on the paper should be two spaces. When writing a word beginning with a capital, the capital should be two spaces high and the minimum letters, such as *i, u,* and *m,* should be one space high. As soon as a new capital letter is taught, it should be applied in writing a proper name, as suggested in the copies. If the new capital can be used in writing the name of a child in the class, it will make the lesson seem very real. Let all the children write the name of this classmate.

What to teach the second term

During the latter part of the second term, which is the latter part of the first year in school, the children should be shown how to make the simple movement exercises on pages 31 and 32 of the *Primary Book* with the muscular movement. In teaching these movement exercises, follow the suggestions given in CHAPTER VII, page 47, for the teaching of the first easy steps in muscular movement.

(1) *Muscular movement exercises.*

When children will have been taught how to make the small letters, figures, and capitals; and how to rest their arms on the muscular cushion of the right arms and make the exercises on pages 31 and 32, *Primary Book*, as suggested for the FIRST and SECOND TERMS, they should review the work by practising the *small-sized copies* at the bottoms of pages 8 to 30 inclusive. During this term there should be less board work and more desk work. The small letters, such as *i*, *u*, *m*, and *a* should be made about a half space high and loop letters and capitals should be made a full space in height. Notice the size of the writing at the bottoms of the pages. Each writing lesson should begin with a brief drill on the movement exercises on page 30 or 31, *Primary Book*.

What to teach the third term

During the FOURTH TERM, the last half of the SECOND YEAR in school, the small-sized copies at the bottoms of pages 33 to 48 inclusive should be taught. There should be short drills daily on the movement exercises on pages 31 and 32, *Primary Book*.

What to teach the fourth term

The constant aim, during the THIRD and FOURTH TERMS, (SECOND YEAR) should be to write with the right arms

resting on the muscles, wrists raised, and the nails of the hands gliding with the pencils, or pens if ink is used.

Make the capitals and loop letters a full space high and the small letters, such as *i*, *u*, *m*, and *a*, about half a space high.

What to do First

Teach the children how to sit comfortably. The following directions may be helpful:

Sit in the middle of their seats and as far back as possible. **Correct posture**

Face straight forward across the desks, not at an angle. Keep the feet flat on the floor.

Lean forward slightly, bending at the hips, but keep backs straight.

Raise the arms before the body, bring the hands together, and drop the arms on the desks. The hands should rest near the center of the desks with the elbows at the edge of the desks.

The aim should be to have the children cultivate a relaxed, comfortable, and healthful posture.

If correct posture is made clear to the children before any attempt is made to write, it will be easier for them to maintain correct posture while writing than if the teaching of correct posture and writing are attempted at the same time. During the first few days — perhaps the first week, frequent posture drills should be given. The periods devoted to these drills should be short. One or two minutes, two or three times a day, will enable the teacher to interest the children in good posture, **Posture drills.**

and prepare them to respond promptly to her command, "Position!" Since this position is not to be strained or rigid, but restful and comfortable, it will be easy for the children to maintain it for several minutes at a time while the teacher is telling them about a new letter or while she is showing them how to make a new letter on the blackboard. This practice in maintaining good posture, while giving attention, will furnish something useful for a part of the class to do while other members of the class are having their turns at the blackboard. That is, some may be practising sitting in good position and observing while others may be working at the blackboard.

How to Conduct Blackboard Work

When the children know how to take "Position" at the desk in orderly fashion, they may be taught how to walk quietly to the blackboard, find their places without racing or crowding, and return to their seats without confusion.

How to avoid confusion.

It is best to divide the blackboard into sections by drawing vertical lines. If it is not desired to have these vertical lines made permanent on the blackboard they may be made quickly for the lesson and then erased when the lesson is completed. These vertical lines should be from twenty to twenty-four inches apart, depending somewhat upon the board space available. Even if there is enough board space to accommodate half the class, it is best, at first at least, to limit the number at the board to the children in *one row* of seats.

After marking off the sections, confusion may be avoided by writing large white figures above the sections. When the sections and numbers are ready, the children may be drilled in going to their places at the blackboard in an orderly manner, and returning quietly to their seats. The child in the first seat should go to the extreme section at the blackboard, the others following in order. When returning to their seats the order should be reversed, the one going to the blackboard last should lead. The children of a row should constitute a unit, the different units taking turns in going to the blackboard.

The children should stand erect but at ease, and face the board. It is advisable to have the children stand away from the blackboard at almost arms' length. This position will enable them to have the best view of their writing, and will lessen the possibility of inhaling crayon dust.

How to stand at the blackboard.

The crayon should be long enough to be held conveniently and still extend about a half inch or a little more from the ends of the fingers. The crayon should be held between the first two fingers and thumb. The top of the crayon should point to the inside of the hand, toward the center of the palm of the hand.

The crayon and how to hold it.

The eraser should be held in the left hand, which should be placed behind the back, as shown on page 6 of the *Primary Book:* or it may hang at the side. It is suggested that the teacher decide which plan she prefers and then insist that all follow that plan. It is well, too, to caution against any tendency to lean against the board or to rest the left hand on the ledge of the board while writing.

It is safe to say that all children will have had some experience in making marks or lines that have some resemblance to written characters when they first enter school. But before progress can be made in changing these almost meaningless lines into real letters, the children must be interested in making some simple but definite exercise. It will also be necessary for them to learn how to work at the blackboard. At first, children will put too much pressure on the crayon. They may even want to rest their hands against the blackboard. The hands must not touch the blackboard. It is desirable that these little writers learn how to glide the crayon over the surface of the board lightly and freely before attempting to make letters. The exercise given on page 7, *Primary Book*, is suggested for this preliminary training.

The first exercise.

Make **Exercise No. 1** on the blackboard. This first exercise, which should be made in the presence of the children while telling them how to make it, should be made six inches high. Begin at the top and make the retraced straight line first, saying "*Down, up, down, up, down, up,*" etc. until it is retraced six times. Say the words with enough snap to indicate a sudden movement. Do not drawl the words, as that would encourage a slowly drawn movement. After retracing the straight line make the oval by starting at the top and moving down the left side and up the right side, passing around the ends of the retraced straight line. While making the retraced oval say "*Down, up, down, up, down, up,* etc." or "*Around and around and around*" until it is retraced *at least* six times. Another helpful step to take imme-

How to teach Page 7 (1) *Pronunciation.*

diately after the exercise has been made by the teacher, is to stand at one side so that the children may have a good view of the exercise and make the same motions *over* the lines on the board, but not touching them, repeating the words used while making the exercise. The children may repeat the words with the teacher, or better still, raise their right hands and make the motions required to make the exercise.

Some benefit would be derived, too, from having the children open their books to page 7, using the first, or pointing finger as a pencil and trace **Exercise No. 1** while repeating the commands given to direct the motion when making this exercise at the board. This will help fix in the children's minds the form to be made, and help them to know how it *feels* to make the movements required to make the exercise. The foregoing steps might well be repeated one or more lessons, until they are well understood by the children, and until a vivid impression will have been made in their minds.

(2) *Tracing in the book.*

Now place on the blackboard, and near the left side of each section marked off, a copy of the exercise to be traced, four inches high. The copy should be made on the blackboard at the height of the children's eyes. Have as many children as have been provided for, take their places at the board, and while repeating "*Down, up, down, up, down, up,* etc." make the motions over the copies *without crayon.* Repeat these motions at the rate of a hundred a minute. Then have the children take crayon and *trace* the copy, repeating "cues," or "commands," as before.

(3) *Tracing on the board.*

Immediately after tracing the copy, have the children take one short step to the right and repeat the exercise. Make the straight line first. While part of the class are at the blackboard, those at their seats should be encouraged to maintain good posture, as previously explained, and observe those working at the blackboard. It may be well, at first, to send to the board the children that would succeed best. In this way the duller children would have the inspiration that would come from seeing their classmates work at the board. Children learn more from demonstration than they do from explanation.

(4) *Writing on the board.*

The first easy steps in letter formation are given on page 8 of the *Primary Book*. The straight down stroke is recognized as the basis for slant, and the line about which the varying curves that form our script letters are woven. The lines that are used in joining the straight, slanting lines are either those that curve *under* or *over*. When the straight, slanting line and the line that curves under are combined, thereby making a *turn at the bottom*, it is called the "*Down-under*" principle. See **Exercise No. 1**, page 8. The "*Down-under*" is made by starting at the top line, coming down on a straight, slanting line, turning at the bottom, and curving up to the top line again. This should be made about six inches high on the blackboard while telling the children about it, using the words "*Down-under*," "*down-under*," until it is retraced six times. The children should be encouraged to repeat the phrase while making the "*Down-under*" motion. They should also open their books to page

How to teach the small *i*, *u*, and *w*.

(1) *The line*

8 and make the motion over **Exercise No. 1** while repeating the motion.

This exercise should then be placed on the upper left corner of each pupil's space on the board, as in the preceding lesson. Make the exercise to be traced by the children four inches high on the board. The results will be best if the blackboard is ruled horizontally with lines two inches apart. These first exercises should occupy two spaces. Later the short letters, such as *i*, *m*, and *a* will be reduced to one space, and loop letters and capital letters will occupy two spaces.

Now have a class go to the board. Care should be exercised to see that all stand well — erasers in the left hands, and the crayon held correctly in the right hand. After *making the motion over the exercise* six times while repeating "*down-under*," have the children touch the board with the crayon and trace lightly and fairly swiftly over the model on the blackboard six times. At the command "Step to the right!" have all pupils at the board take one short step to the right and make "*Down-under*" two or more times. The pupils should be taught to repeat the descriptive command while making the motion. These descriptive commands not only serve to establish rhythmic movement but they serve to teach the pupils to think what kind of movements they are making.

(2) *Tracing on the board.*

When the "*Down-under*" is fixed in the minds of the children, they will be able to proceed to the making of the letters *i*, *u*, and *w* intelligently. At least one or more lessons should be spent on each letter before taking a new letter, depending somewhat on the ability of the class.

A word of caution may be necessary at this time. Make haste slowly. Be sure that the children understand each step. Be patient and sympathetic, remembering that each new letter is a sort of revelation to the children, and that the impression that the new letter makes on their minds depends upon the way its formation is unfolded to them.

(3) *Direction for practice.*

Each letter, when first presented, should be made about six inches high on the blackboard, carefully explained, and traced while repeating the appropriate phrase. The children should be taught to say the phrase while making the motion required, and to trace the letter in the book several times. The several models should then be made on the blackboard by the teacher, traced by the pupils, and then written by them. Since the *i* consists of an under motion, a down stroke, and an under motion it is called "*Under-down-under.*" Be sure that the children understand why the phrase "*under-down-under*" is used. The letter *u* is merely a repetition of the letter *i*, therefore children will readily understand why it would be necessary to say "*under-down-under-down-under*" while making the letter *u*. When making the *w*, a new movement is introduced, namely, "*swing.*" It should be made clear to the children that the *w* is just like the *u* except the addition of the little swing. Emphasize the halt in motion before making the swing, as indicated by the comma. Say "*Under-down-under-down-under, swing*" for the *w*. The initial stroke in *i*, *u*, *w*, *e* may be called "*up.*"

The small *e* is a particularly good letter to use in the *early lessons*. Owing to the fact that there are no angles,

or points, in the *e* it may be made to serve as a good exercise to develop a continuous rhythmic movement. Make clear that the first stroke is made with an under motion like the first stroke in the *i* and that the last stroke also is made with an under motion like the last stroke of *i*; but that instead of making the top pointed like the top of the *i*, it must be made *round*. Therefore we must call it "*Under-round-under.*" It is well known that *e* is frequently mistaken for *i* because the top is not made round and the loop open. The letter should be made in large form on the board, carefully explained and retraced while repeating the command "Under-round-under." The children should practise saying the phrase and tracing **Exercise No. 1**, page 9, *Primary Book*. Then the several tracing models should be made on the board. These should be traced by the children as before and then written on the board.

How to teach the small *e*. (1) *Details that need attention.*

When the single *e* can be made fairly well, the group of three *e*'s, **Exercise No. 2**, page 9, *Primary Book*, should be made continuously. The movement should be regulated by saying rhythmically "*under-round-under-round-under-round-under.*" Children may be interested in making the *e*'s round at the top and with open loops by telling them to make all the *e*'s so one may "*see through them.*" Have the children trace the copy in the books with the finger or dull end of the pencil while repeating the descriptive phrase, until they get the idea of just how the continuous rolling motion is made, and then have them make it. Children usually take delight in making this exercise.

(2) *Directions for practice.*

The letter *s* is made with a "rocking" motion. By the time this lesson is reached it will probably be found that the children will recognize the initial and final strokes in the *s* as the *under* motion. But the children must be led to see that before making the final "*under*," one must swing *back* and touch the first "*under*." Therefore we must call the *s* "*Under-back, under.*" The command should be said in such a way as to indicate a sudden movement on the "*Under-back,*" and then make a slight stop before making the final "*under,*" as indicated by the comma. The *s* should be pointed at the top and closed at the bottom. Make the two *s*'s continuously to the phrase "*Under-back, under-back, under.*"

How to teach the small *s*.

When the children understand clearly how to make the *s*, it will prove interesting to combine the *s* and the small *e* exercise of the preceding lesson and write the word "*see.*" It should be presented in the same way that the preceding letters were presented. First, it should be written quite large on the board and retraced several times to the phrase "*Under-back, under-round-under-round-under.*" The command should be given in such tone of voice as will indicate a free, lively movement. A distinct stop should be made after the first "*Under-back,*" as indicated by the comma, to make sure that the *s* is closed. This stop will also aid the pupil in controlling the movement. The word "*sew*" also may be written at this time as the *s*, *e*, and *w* will have been taught. Write it on the board four inches high. The descriptive phrase used to direct the movements is "*Under-back, under-round-under-down-under-down-under, swing.*" The words should be said

How to teach the word *see*.

in a tone of voice that will encourage freedom of movement with slight stops at the commas.

The children should now be shown how to make the "*over-down*" motion. See page 11, *Primary Book*. Make clear to the children through blackboard demonstration just how this motion is made. Make it rather large, showing that one must begin at the line, move upward, turn at the top, and make a straight slanting line downward to the bottom line. Remind the children that when a turn is made at the bottom as in *i*, *u*, and *w*, it is called "*down-under*." Then help them decide, or agree, that when a turn is made at the top it should be called "*over-down*." The "*over-down*" should then be traced and made while repeating the command, until it is clearly understood and can be made at least fairly well. See **Exercise No. 1**. Following this, teach the combination of the "*over-down*" and the "*down-under*," making the "*over-down-under*," — **Exercise No. 2**. The making of **Exercises Nos. 1** and **2** will prepare the children to make intelligently the small *m* and *n*. When writing *m* say "*Over-down-over-down-over-down-under*."

How to teach small *m* and *n*.

Write the word "*me*" on the board quite large. Use soft crayon so that the lines will be smooth and white. Make clear to the children that it consists of three "*over-downs*" and one "*under-round-under*." Therefore the command should be "*over-down-over-down-over-down-under-round-under*," which should be said at the rate of about twenty words a minute.

How to write *me*.

The children and teacher should repeat the phrase while the teacher retraces the word. The children should then

trace words previously written on the board by the teacher. See page 6, *Primary Book.*

Writing on Paper

As soon as children learn how to trace the copy at the board and how to follow directions they should be shown how to place their paper and write the letters and words that have been practised on the blackboard.

During this letter- and word-building process the children should always trace the copy several times before attempting to write it. The child must *see* the thing to be made before he can reproduce it; and since motion aids the children in perception, they acquire correct ideals of letter forms by making the motion over the copy and by tracing the copy before attempting to write it. Therefore the best results will be secured if the children always trace a copy on the board by the teacher before writing on the board, and *trace the copy in the Primary Book before attempting to write on paper.*

The importance of tracing good copy.

No attempt should be made to write with the muscular movement while practising these large free forms. Let the arms move with the hands. While learning how to make these large free forms it does not seem best to worry and annoy these little ones with too many technical directions. Strive for freedom and approximately good letter forms.

It is hoped that the preceding directions for the teaching of the exercises on pages 7, 8, 9, 10, and 11 will suggest to the reader how to proceed in the teaching of the exercises that follow.

The descriptive phrases, or "cues," may be made to serve a two-fold purpose in the teaching of writing to children. First, the correct use of these phrases will aid the child in thinking the direction of the motion to be made. The teacher who enters into the spirit of the plan, can, in a very short time, have her class know what she means when she says "*Down*," "*Round*," "*Swing*," "*Down-under*," "*Over-down*," etc.

The use of descriptive phrases.

Second, the teacher who will cultivate the habit of saying the phrases suggested in a sort of rhythmical tone, with properly placed accent, will find them especially helpful in developing freedom of motion. These phrases should be used both when tracing the copy and when writing.

To aid the teacher in using the following alphabetical list of phrases, the words to be accented are printed in italics and slight stops in the motion are indicated by commas. These accents and stops should be observed. The phrases should be said in a sort of lively tone, making sudden stops where commas are placed.

These phrases are meant to be suggestive. If the teacher finds that by modifying a phrase she can succeed better, she should do so. But she should use the ones suggested until she is sure she has better ones. The ones submitted have been found practical.

In presenting a letter the teacher should make very clear to her class the reason for saying "*Over-down*," "*Down-under*," "*Round-up*," etc., before employing the phrase.

Descriptive Phrases for Small Letters

a, — Round-up-*down*-under.
b, — *Up*-down-up, swing.
c, — *Dot*, down-under.
d, — Round-*up*-down-under.
e, — Under-*round*-under.
f, — Up-*down*-up, under.
g, — Round-up-*down*-over.
h, — *Up*-down, over-down-under.
i, — Under-*down*-under, dot.
j, — Under-*down*-over, dot.
k, — *Up*-down, over, down-under.
l, — *Up*-down-under.
m, — Over-*down*-over-*down*-over-*down*-under.
n, — Over-*down*-over-*down*-under.
o, — *Round*-up, swing.
p, — Up-*down*-over, under.
q, — Round-up-*down*-up, under.
r, — Under-*out*-down-under.
s, — Under-*back*, under.
t, — *Up*-down-under, cross.
u, — Under-*down*-under-*down*-under.
v, — Over-down-under, *swing*.
w, — Under-down-under-down-under, *swing*.
x, — Over-down-under, *cross*.
y, — Over-down-under, *down*-over.
z, — Over-down, *down*-over.

Note. — When teaching i, u, w, e, if it seems better to do so, name the initial stroke "up" instead of "under."

Descriptive Phrases for Figures

1, — *Down*.
4, — *Down*-right-*down*.
7, — *Dot*-right-down.
9, — Round-up-*down*.
6, — *Down*-under-down.
0, — *Round*.
2, — *Dot*, down-right.
3, — *Dot*, round-round.
5, — Down-*round*, right.
8, — *Dot*, down-over.

Descriptive Phrases for Capital Letters

A, — *Round* up, down.
B, — Down-up-*round-round.*
C, — Down-*around.*
D, — *Down*-over-under-swing.
E, — *Dot*, round-around.
F, — Down-*back*, down-over, cross.
G, — Up-*round*, back.
H, — Down-over-*down*, down-around; or down-swing.
I, — Over-down-*back.*
J, — Over-*down*-over.
K, — Down-over-*down*, down-around-down.
L, — *Swing*-down-*swing.*
M, — Down-over-down, over-down-over-down; or Loop-down, over-down-over-down.
N, — Down-over-*down*, over-down.
O, — Big-*round*-O; or *Round*-O-swing.
P, — Down-up-*round.*
Q, — Down-over-down-swing.
R, — *Down*-up-round-down.
S, — Up-round-*back.*
T, — Down-*back*, down-over.
U, — Down-over-down-*up*, down.
V, — Down-over-*down*-up.
W, — Down-over-*down*, up-down-over.
X, — Down-over-*down*, down-under-down.
Y, — Down-over-down-*up*, down-over.
Z, — Down-over-*down*-down-over.

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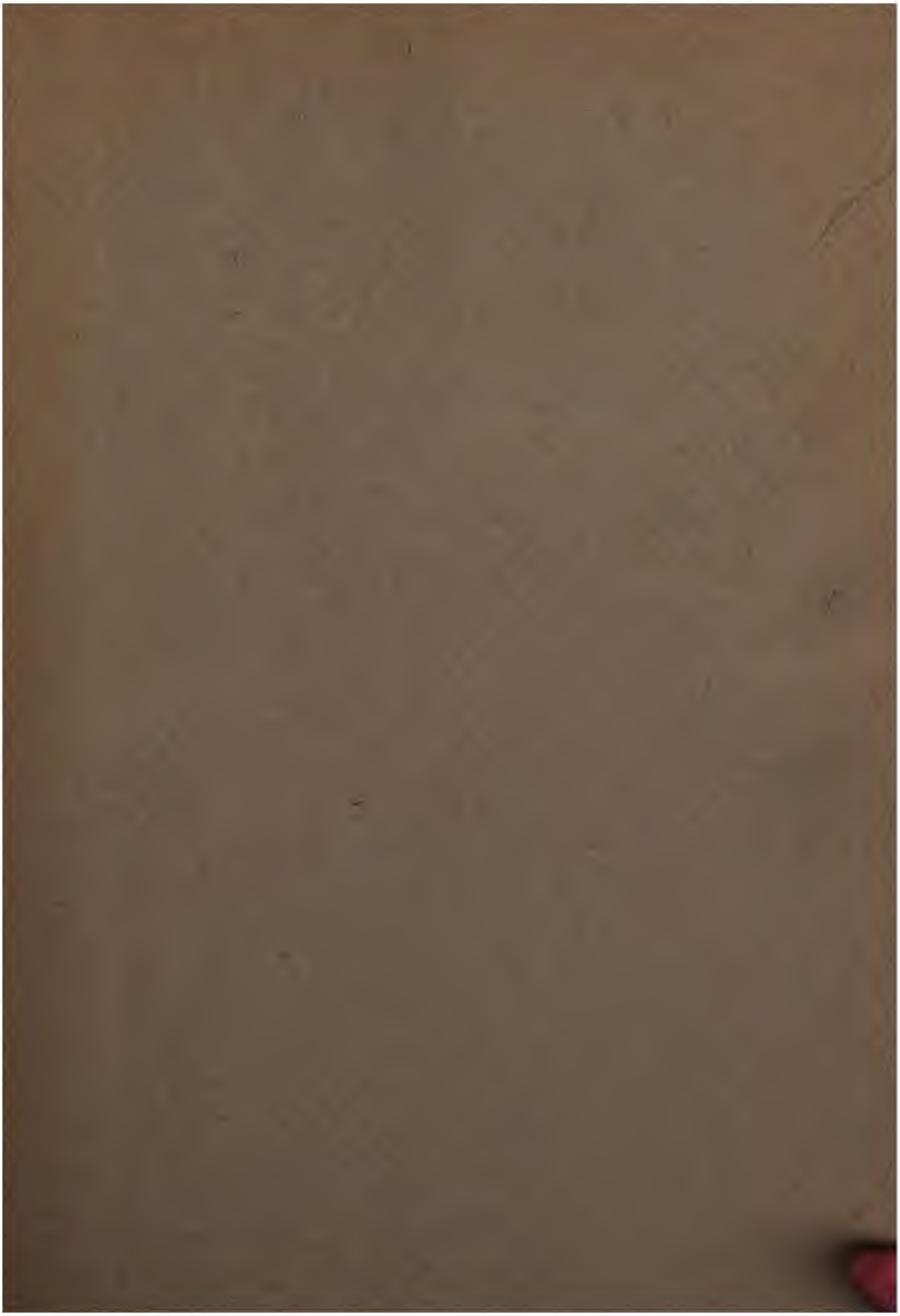

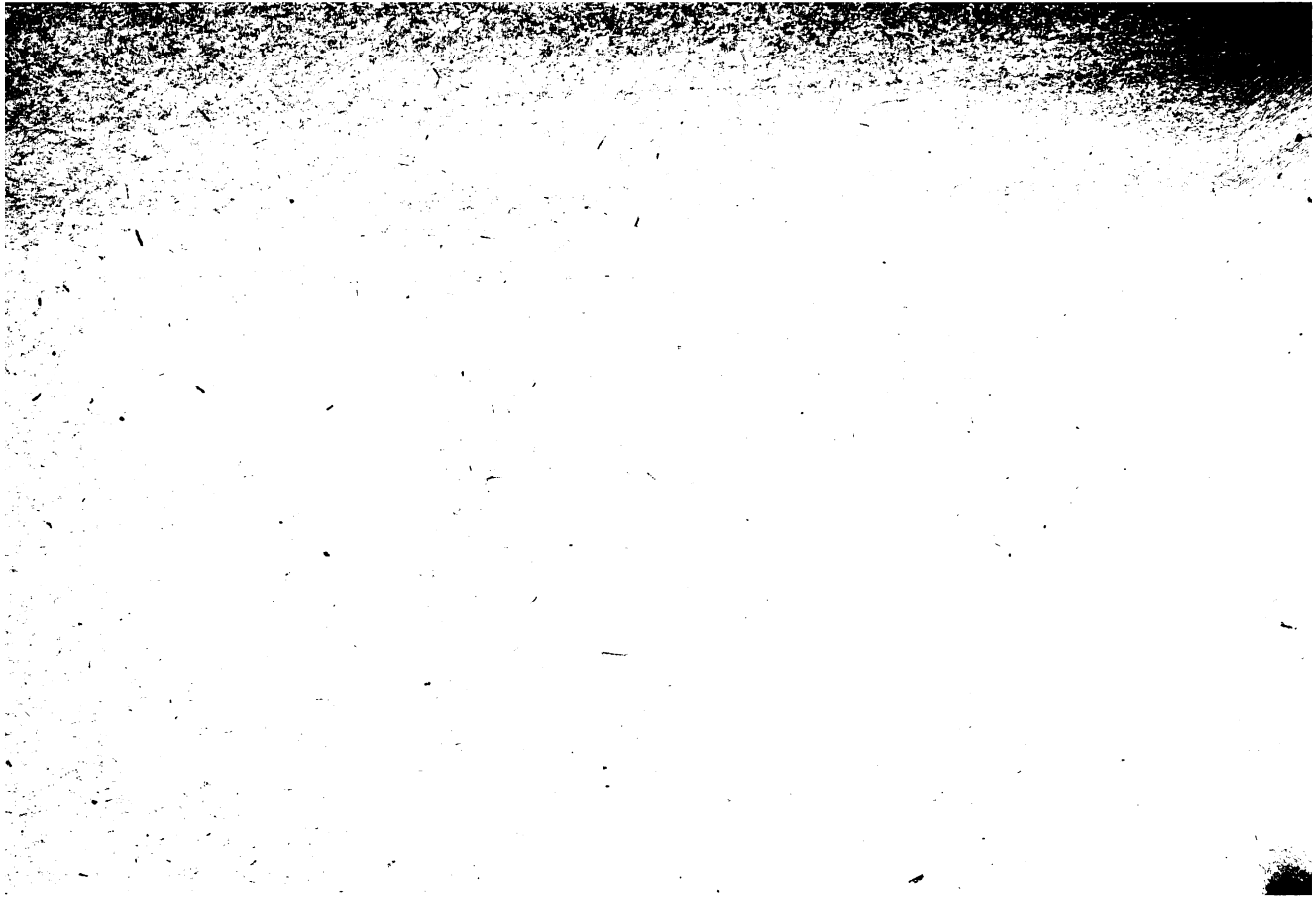

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